Mice having fun with toys

Exploring the use and effect of foraging enrichments

Author: Derek Dee Supervisors: Anna-Carin Hagström, Jordi Altimiras

Background

Foraging enrichment provides **foraging opportunities** and **cognitive stimulation** for laboratory mice (*Mus musculus*), potentially improving their housing conditions.

Aim

To assess the **use** of foraging enrichments and their **effect** on the **behaviour** and **welfare**.

Methods

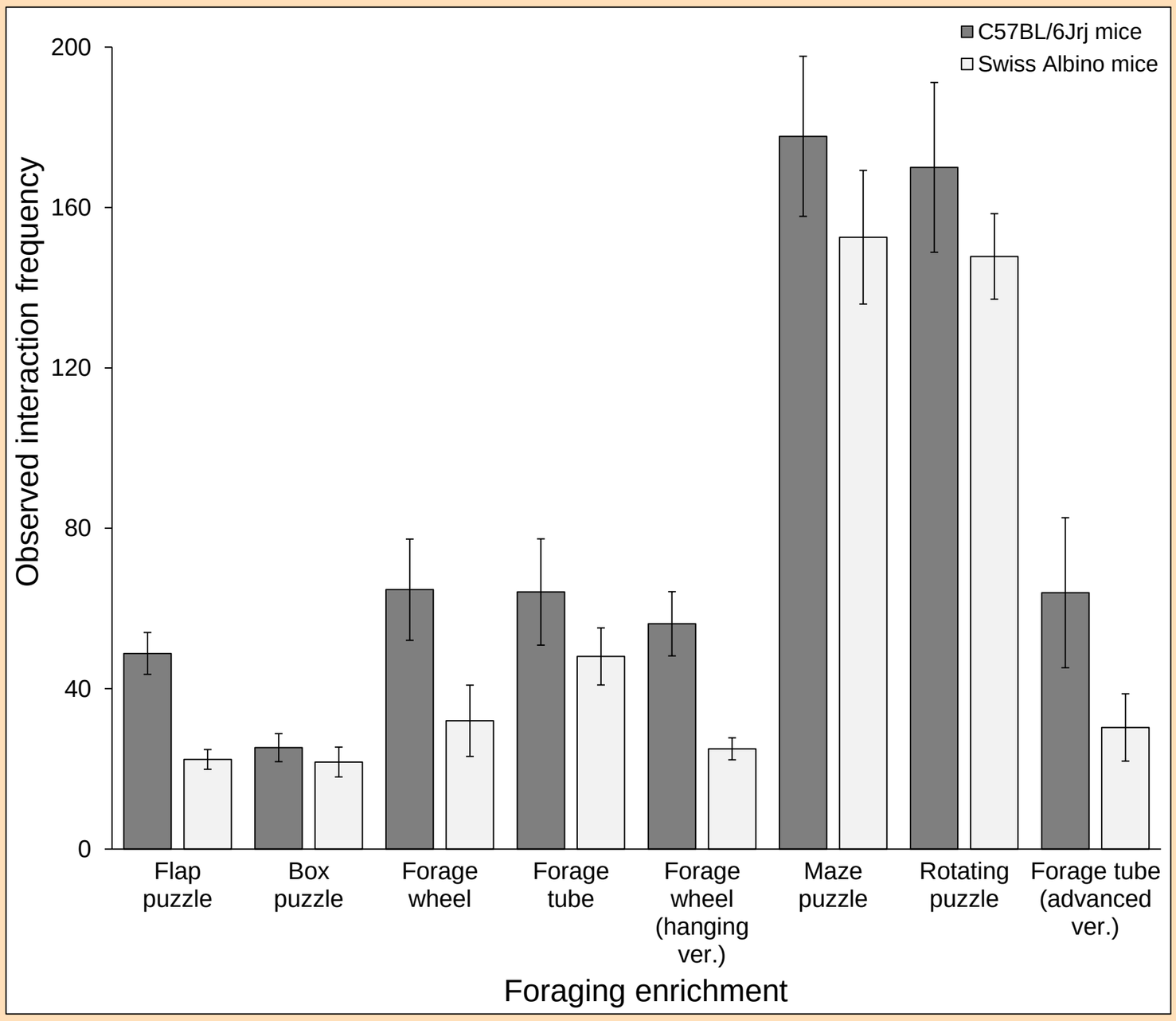
- Mice's **interaction dynamics** with foraging enrichments were video recorded.
- **Behavioural observations** and **open field tests** were conducted to assess behavioural changes.

Results

Foraging enrichments with greater cognitive **complexity** and **difficulty** had a **higher interaction dynamics**.

After the exposure of foraging enrichments

- **Stereotypic gnawing** behaviour **decreased** in the home cage.
- **Locomotory** and **exploratory behaviours increased** in the open field test.



Conclusion

The behavioural changes suggest **reduced stress** and an **improved affective state** in the mice, highlighting the **potential welfare benefits** of foraging enrichments.

LINKÖPINGS UNIVERSITET