

Study of social relationships in a multispecies facility and their impact on animal welfare

Introduction

Zoological institutions have made significant progress species-specific environmental enrichment techniques have been implemented to optimize positive welfare experiences in zoos. Modern zoos aim to provide optimal facilities, including **multi-species habitats** that facilitate **interspecies interactions**.

Meeting the physiological and psychological needs of animals is crucial for their well-being, including social companionship, cognitive stimulation, and adaptive capacities. Multi-species facilities contribute to visitor experiences by enabling diverse inter- and intraspecific interactions. **California sea lions, Harbor seals, and Loggerhead sea turtles** are distributed along the western coast of North America and exhibit coexistence in their natural habitats.

Multi-species facilities offer opportunities for increased **social interactions and cognitive stimulation** among pinnipeds, enhancing visitor education and insights into natural ecosystems. Despite challenges, multi-species facilities hold significant potential **benefits for the welfare** of captive marine mammals.

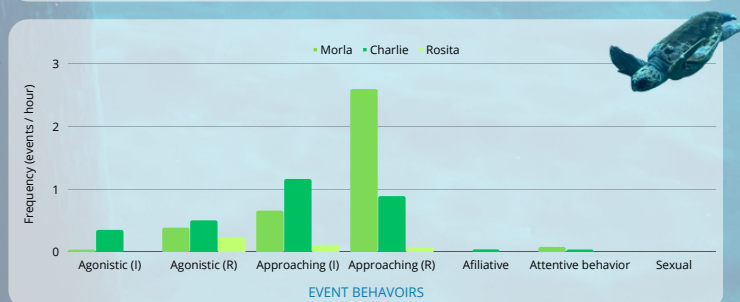
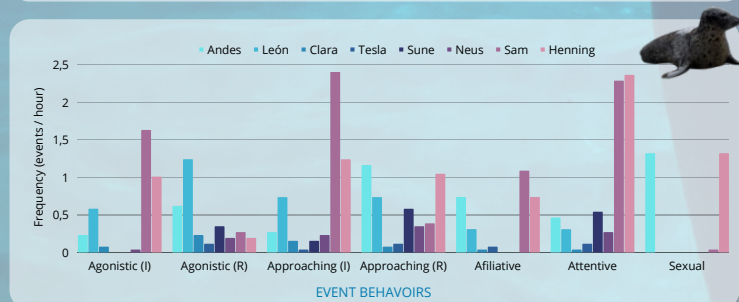
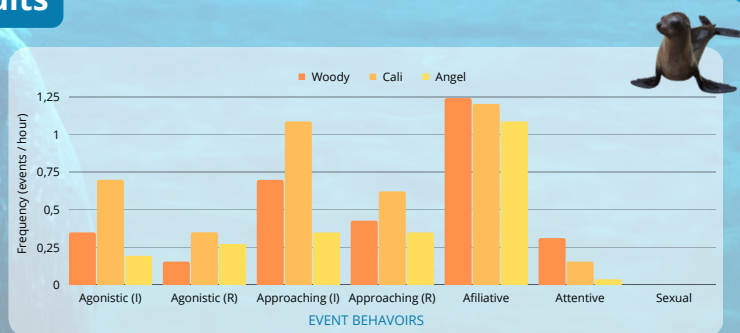
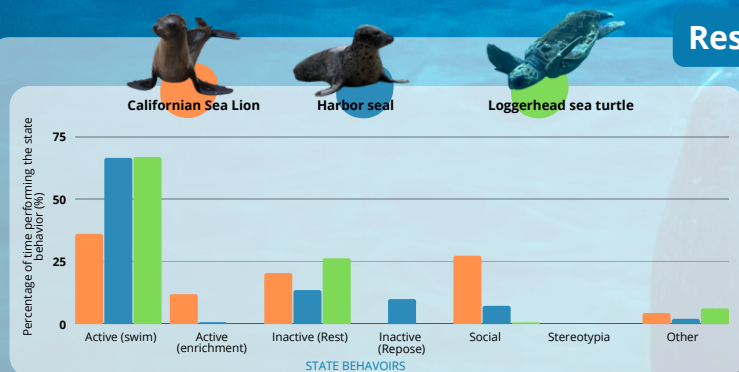
Objectives

The main objective of this work is to study the potential welfare effects of a semi-aquatic multi-species (namely pinnipeds and marine chelonians) facility. Specifically, we aimed to (i) **characterize a multi-species habitat** where California sea lions, Harbor seals and Loggerhead sea turtles cohabit; (ii) **study the behavior** of each individual in the facility and the inter-individual affiliative and agonistic interactions; and (iii) **assess the welfare implications** of the presence of multiple species using behavior as an indicator.

Methodology

The data acquisition process involved using **species-specific ethograms** to record behaviors and collecting contextual information. State behaviors were analyzed to determine the proportion of time animals spent in different categories (e.g., active, inactive, social). Event behaviors were assessed by calculating their frequency and categorizing them by species and individual.

Results



Conclusions

- Observations conducted within the investigated multispecies facility have revealed a notable increase in social interactions
- The application of environmental enrichment elements has shown promising potential to promote interspecific and intraspecific socialization.
- The age factor emerges as a crucial determinant, as evidenced by the findings. Juvenile and sub-adult animals exhibit a substantially higher occurrence of social behaviors compared to the adult or geriatric

References

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