

How Public Noise Affects Sumatran Tiger (*Panthera tigris sumatrae*) Behaviours at Flamingo Land



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Introduction

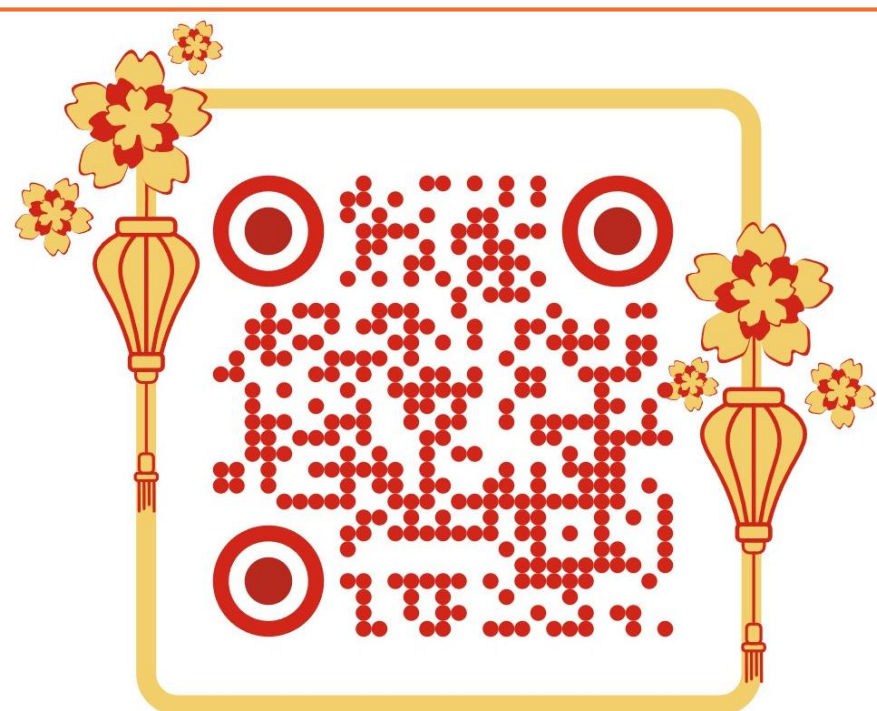
Sumatran Tigers are Critically Endangered, meaning conserving and breeding them in captivity is crucial for the genetics of this species. To achieve this, high welfare standards need to be met but for this to be successful research needs to be conducted to understand their natural behaviour repertoire and what they need to achieve this in captivity (Armstrong et al, 2021). However limited research has been conducted on captive felids and how they are affected by the public, which potentially puts their health at risk which can impact reproductive success and what behaviours they display (Suárez et al., 2017). By studying two tigers at Flamingo Land a popular attraction for visitors, it adds to the limited research on how public noise effects captive tigers further seeing how zoos can increase natural behaviours.

Aims

- To assess the difference in Tiger behaviours depending on public sound levels.
- How we can increase behaviours in captive Tigers to fit their natural behaviour repertoire.

Method

- Plan Observation and make Risk Assessment
- Pass Ethics
- Conduct a Pilot Study and Make a Behaviour Ethogram (Scan QR Code)
- Conduct Behaviour Observations using Continuous Focal Sampling
- Analyse Results



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Tiger Behaviours

Results

Overall data sets for male (Figure 1) and female (Figure 2) were tested to discover if there is a difference in overall tiger behaviour with and without sound. Males' results found that there is not a significant difference between behaviours which were displayed with no sound and sound present (Wilcoxon signed-ranks test: Wilcoxon statistic = 153.50, N = 21, $p > 0.05$). Females' results found that overall, there was not a significant difference between behaviours which were displayed with no sound and sound present (Wilcoxon signed-ranks test: Wilcoxon statistic = 163.00, N = 21, $p > 0.05$).

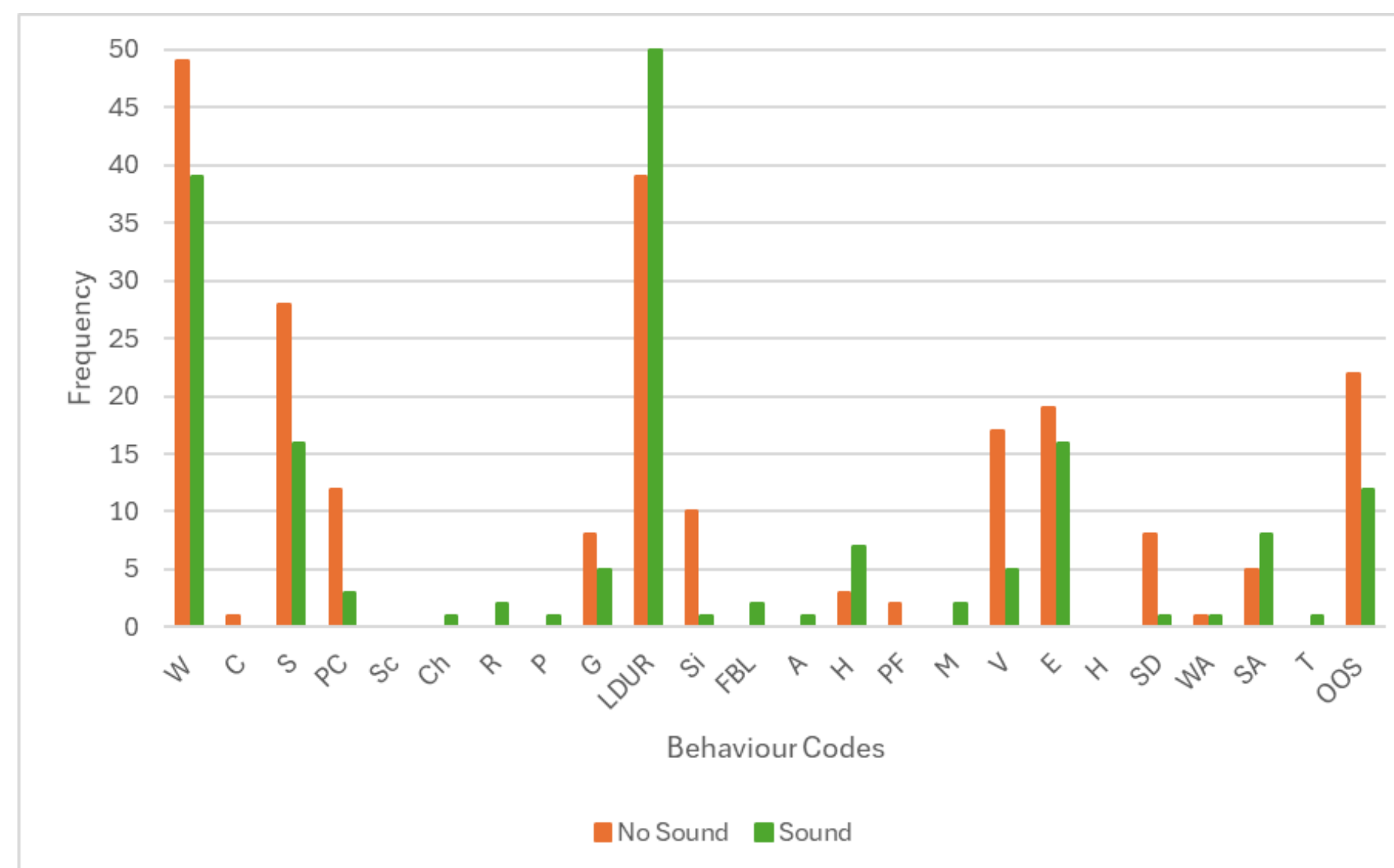


Figure 1 Behaviours displayed by the male (Bawa) with no sound and sound present.

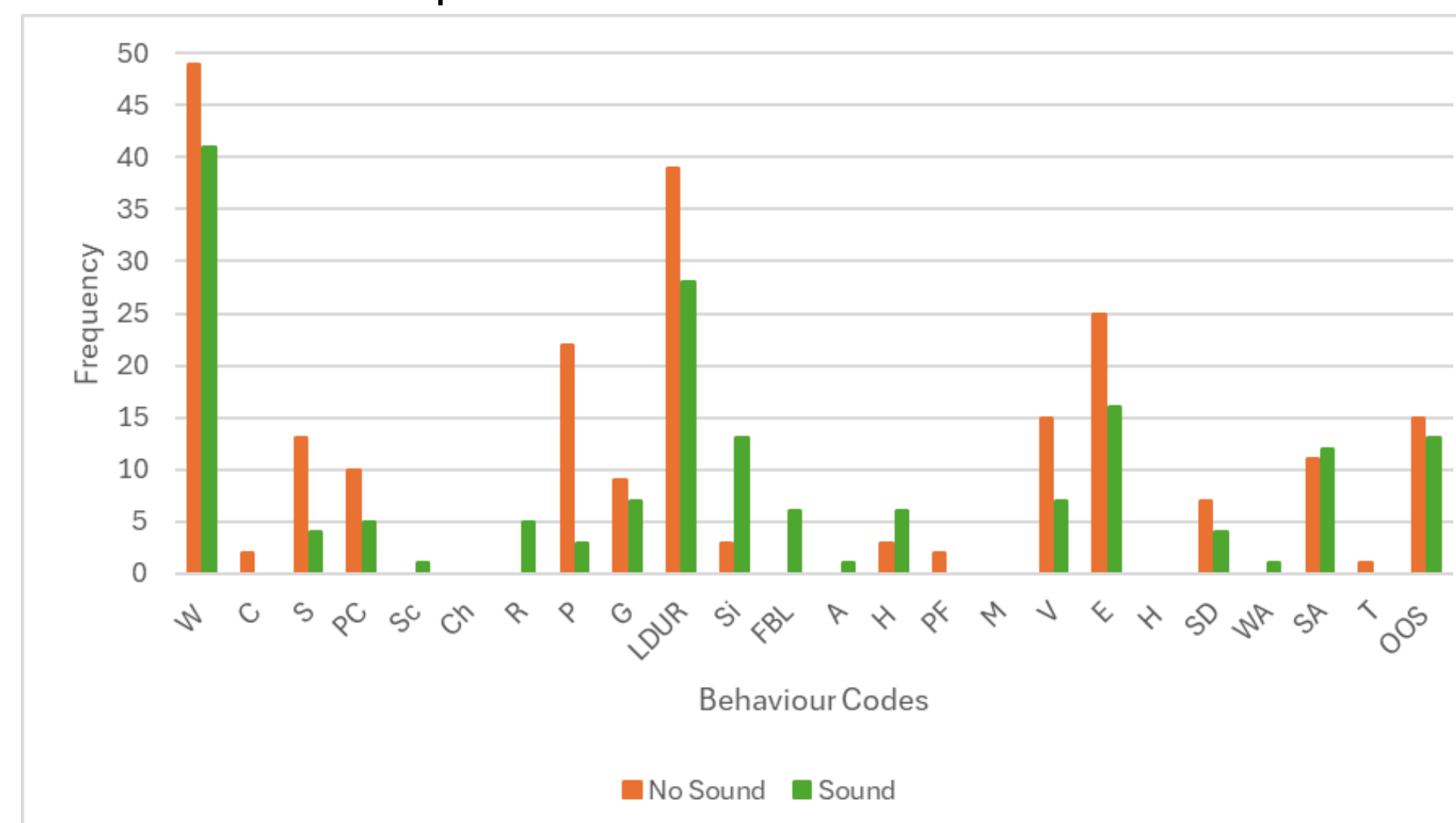


Figure 2 Behaviours displayed by the female (Surya) with no sound and sound present.

Discussion

There was no statistical difference in the overall change in Tiger behaviour depending if artificial sound was played or not. Elias (2012) indicated that public sound could be used as a type of sound enrichment for tigers, as presented to have either a neutral or enriching response more than a negative affect depending on the visitor. In comparison Pelletier (2019) studied a variety of felids showcasing that behaviours may differ across species depending on visitor sound levels however, evidence wasn't strong enough to provide a strong conclusion further linking to more research needing to be undertaken on the effects of visitors on felids.

Both studies provided outcomes which could have been the case for the two tigers at Flamingo Land, however their change in behaviours could have been due to their daily feeding routine being change during the zoos closure to the public during the winter causing an increase in locomotory behaviours. Although age could have potentially been the biggest factor as with age comes reduced activity levels and health issues like loss of hearing, meaning the findings wouldn't have been as accurate if they couldn't hear as well however cannot be certain (Strain, 2017).

Conclusion

The main aim of the study was to discover if captive Tiger behaviours were affected by the presence of public sound at Flamingo Land. It was analysed that there was no significant statistical change in both male and female Tiger behaviours depending on the presence of visitor sound or not. This could suggest that both tigers were not affected by the volume of artificial visitor noise, however this could be due to their old age and activity periods changing, or how long they have been in the collection for, meaning they have potentially habituated to variations of visitor noise. Further research is needed on bigger sample sizes and age variations to discover more accurate findings to improve welfare and enclosure designs for captive felids.



References

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