

POSTER

RETHINKING BEHAVIOURAL OBSERVATIONS – A DIRECT COMPARISON OF SAMPLING METHOD PERFORMANCE

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ABSTRACT

Reliably and efficiently generating social networks is an essential part of the research of the evolution of social relationships. The challenge of capturing a full record of all social interactions among individuals emphasizes the need to systematically sample behaviour through standardized observation methods. Traditionally, researchers have relied on continuous focal sampling assuming it provides the most accurate results. However, recent simulation studies suggest that instantaneous scan sampling might be more effective to generate social networks.

In this project we are comparing the performance of focal continuous sampling with an adapted version of scan sampling by recording social interactions (proximity, body contact, grooming and agonism) and constructing social networks of a group of semi-free ranging Japanese macaques (*Macaca fuscata*) at the Affenberg Landskron, Austria. For three months, two observers simultaneously collected social interaction data on 30 target females. One observer used focal sampling, while the other used scan sampling, with a daily alternation of observer-method.

From these data we will generate networks using BISO_N [Bayesian Framework for Inference of Social Network], which estimates edges with explicit uncertainty based on observation effort. We will compare the scan and focal networks in their similarity, confidence in the edge weights and robustness of estimated network metrics at individual, dyadic and global network levels. These analyses will allow us to examine the impact of lower observation effort on the estimated network metrics, providing an indication of which method provides a more reliable and representative estimation of the true behavioural rates and underlying network structure.