

WIAS

Annual Conference

2025

Social organisation in Zebra finches- Tracking long term family movement

Noëlle Tschirren^{1*}, Lysanne Snijders¹, Hugo Loning¹, Marc Naguib¹, Simon Griffith², Chris Tyson¹

¹ Behavioural Ecology Group, Wageningen University & Research, The Netherlands

² School of Natural Sciences, Macquarie University, Sydney, Australia

* Corresponding author. E-mail: noelle.tschirren@wur.nl

Zebra finches are a key model species in behavioural and evolutionary research, particularly for studying song learning. In laboratory studies, juvenile sons primarily learn their song from their fathers during a sensitive developmental period. Whether this pattern holds in the wild is unclear as family cohesion under natural conditions is poorly understood, and early juvenile dispersal may lead to learning from multiple tutors. To better understand social organisation, vocal communication, and song learning in wild zebra finches, we fitted parents and fledglings with solar-powered radio transmitters to track their movements and interactions over time. Specifically, we examine how families are socially organised, how long they remain cohesive, and whether there are sex differences in juvenile proximity to parents. We also examine whether parents expose offspring to broader social networks in social hotspots, potentially providing access to multiple song tutors, and whether crèche formation occurs. Additionally, we investigate whether families primarily associate with conspecifics from their natal breeding area or interact with individuals from different locations, potentially exchanging ecological knowledge. By addressing these questions, we bridge the gap between laboratory studies and the ecological complexities of wild populations, offering novel insights into the social organisation and vocal behaviour of zebra finches in their natural environment.