Supercolonies have evolved independently in several ant lineages. While supercolonal lifestyle is usually associated with invasive ants, large supercolonies exist also in non-invasive groups such as *Formica* wood ants. Both native and invasive supercolonies are predicted to be exposed to evolutionary consequences of extremely low kinship among nestmates, namely evolution of selfish traits, and mutation accumulation due to lack of indirect selection on worker traits. The actual threat of such possible evolutionary meltdowns, and timescales involved remain unknown. In this talk, I will draw on behavioural, population genetic and genomic analyses in order to explore what studies of