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Colony breeding structure of the invasive termite Reticulitermes urbis

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The invasive success of social insects is related to their ability to adapt to new environments. To gain a better understanding of the biology of invasive termites, the social organization of the subterranean termite, *R. urbis*, was investigated by analyzing the breeding structure and number of reproductives within colonies from three introduced populations. Using eight microsatellite loci to determine the genetic structure, it was found that all the colonies from the three populations were headed by both primary reproductives (kings and queens) and secondary reproductives (neotenics) to form extended-family colonies. *R. urbis* appears to be the only *Reticulitermes* species with a social organization based solely on extended families in both native and introduced populations, suggesting that there is no change in their social organization on introduction. F-statistics analyses indicated that there were few neotenics within the colonies from urban areas, which did not agree with results from previous studies and field observations. This suggests that, while several neotenics may be produced, only a few become active reproductives. The factors that may cause an individual to differentiate into a neotenic in Reticulitermes species are discussed. The invasive success *of R. urbis* may be due to different reproductive strategies in urban and semi-urbanized areas.