EFFECT OF GROUP SIZE ON SURVIVAL AND POTENTIAL COLONY FOUNDATION OF THE UP COUNTRY LIVE WOOD TERMITE, POSTELECTROTERMES MILITARIS DESNEUX (ISOPTERA:KALOTERMITIDAE)

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The up country live wood termite, Postelectrotermes militaris Desneux, is a serious insect pest of tea in the Maskeliya and Dimbula planting

districts. In order to evaluate the minimum number of termite individuals from residual population that would initiate a new colony, groups of 1, 2, 4, 8, 16 and 32 termite workers were observed for their longevity and formation of neotenics (functional reproductives, in ten replicates at regular intervals. Survival was measured by the mean number of days each group lived and the potential colony founding, by the number of neotenics formed.

This study revealed that single individuals lived for shorter periods than groups of 2 and 4, which in turn lived for lesser periods than groups of 8, 16 and 32. Groups of 1 and 2 did not form any neotenics, while a group of 4 formed fewer neotenics than higher groups. Thus, this study indicates that as little as 4 individuals (workers) could found a functional colony, while higher numbers (8, 16 or more) have a greater chance to found new colonies. Hence, it becomes vary necessary to eliminate all residual termite population, as much as possible, from an infested area, before any replanting is undertaken. The 'group effect' strongly suggests the existance of aggregation pheromones in this termite for survival and for development of functional reproductives.