

## NOVELTIES ON THE BIOLOGY OF THE ASIAN TERMITE *COPTOTERMES GESTROI* (ISOPTERA, RHINOTERMITIDAE)

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*Coptotermes gestroi* is an introduced pest of substantial economic impact in Brazil. A colony of this subterranean termite builds polycalic nests and uses simultaneously several food resources. However, there is no record of the flow of castes through the “calies” and among the different food sources. Manipulations of colonies in laboratory help to understand the colony behavior in the field. This study concerns the occurrence of the swarming and movement of the reproductives in a *C. gestroi* laboratory colony of 13 years old. Laboratory colonies were initiated with pairs of alates collected in 1997, whose first transference was to a plastic container of 0.5 L in 1998 and for one of 6 L in 2005. In 2009, the census of one colony was carried out and it showed a total of 2,472 individuals: 1 royal couple, 275 soldiers, 1 pre-soldier, 2,106 workers, 88 “larvae” and 22 eggs. After this census, the colony was transferred to a plastic container of 5 L filled with moistened sawdust and connected to 2 smaller containers, of 2 L each (A and B), placed each other in opposition. Both small containers contained soil and *Pinus* wood blocks. The connecting tube of container A measured 1m and the one of container B, measured 3m. In January of 2011, after the swarming of 25 alates, this colony was recensused and presented a total of 2,613 individuals: 1 royal couple, 186 soldiers, 10 pre-soldiers, 2,283 workers, 132 “larvae” and more than 20 eggs. However, the royal couple, 2,228 workers, 157 soldiers, 10 pre-soldiers and 130 larvae were in the food source A, while in the food source B there were the alates, 48 workers, 18 soldiers and “2 larvae”. In the central container there were 11 soldiers and 7 workers. The results suggest that the foraging space influences the dispersion of the colonies, since there was swarming only after it was provided a larger area for foraging. Colonies of the same age that were kept in a single container did not swarm. On the other hand, colonies also initiated in 1997 and soon had the opportunity to grow and forage, swarmed after 6 years in the laboratory. Moreover, the transference of reproductives and larvae to the food sources, as occurred in this study, shows a reproductive strategy of termite movement among the foods and the carrying of the “larvae” or eggs among the “calies” of the nest.

**Key Words** *Coptotermes gestroi*, foraging, Isoptera