HERMETISM VARIATION in Camponotus morosus (Hymenoptera: Formicidae) with the age of homospecific intruding ants

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Ants present hermetism, that is, they recognize and discriminate individuals alien to the colony, even at a homospecific level, which results in aggressive reactions against intruders, varying with their age. To evaluate the importance of this factor, transfers of homospecific larvae, pupae and 2- and 8-h-old adults of Camponotus morosus Smith were carried out. All the transferred larvae developed into pupae, and later into adults, but only 20% of these survived 15 d in the receiving nests. The transferred pupae were attacked and killed in 8 d. The transfer of 2-d and 8-h old adults produced 70 and 30% acceptance, respectively. These results indicate that adults begin to develop their own odor earlier than 2-d of age. The age of the intruder was determinant in its acceptance of C. morosus homospecific resident ants, as indicated in a 1-way ANOVA ($p = 0.0001$). The adults that survived the transfer of larvae were later reintroduced into their original nests; 37.5% of them were accepted, compared with 65% acceptance for 2- and 8-h old adults reintroduced, indicating that there is a strong genetic influence in the development of their own smell, that would allow adults to be recognized as belonging to the nest. The fact that not all the males were accepted can be explained by the influence of the odor acquired in the receiving nest.