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What makes a reproductive worker in a clonal ant?

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Division of labour in insect societies is one the tenets of eusociality. However, the proximate factors underlying task allocation and specialization in social insects are not yet fully understood. For example, there is firm evidence for genetic variation, morphology, individual experience or developmental factors in the propensity of individuals to take over particular tasks. Nevertheless, a division of labor still exists among individuals that lack these differences. A case in point is in clonal ants. Little is known about the factors causing task allocation in these cases. Workers of the tropical ant *Platythyrea punctata* are capable of producing female offspring from unfertilized eggs. Clone-colonies are characterized by a clear division of labor between one (occasionally several) reproductive worker and a number of non-reproductive workers. This reproductive division of labor is based on rank orders established by workers by fighting, but what determines rank differences among nestmates remains unanswered. In this study, we first investigated whether division of labor in *P. punctata* is based on age-polyethism between nestmates and if it correlates with the egg-laying capacities of workers. Then, we tested whether clone origin of workers influence their propensity to take over particular tasks in the society, i.e. the reproductive division of labor. First results reveal that there appears to be an age-based division of non-reproductive labor between nurses and foragers. By chimeric assemblies of clones, we followed the formation of hierarchies in young worker groups. Our results show that a hierarchy readily appears between workers in few days but their clonal origin does not affect division of labor.