Nesting biology, life cycle, and interactions between females of Manuelia postica, a solitary species of the Xylocopinae (Hymenoptera: Apidae)

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The Xylocopinae contains four tribes with species which show a range of nesting habits, from solitary to social. The Manueliini is the sister group to all other Xylocopine tribes, with one genus, Manuelia, of three species found mainly in Chile. This is a solitary genus, whose biology is scarcely known for two species, M. gayatina and M. gayi, and so far completely unknown for M. postica. This paper reports on nesting substrates, nest architecture, nesting behaviours, life cycle, and interactions between females at nesting sites, for M. postica. The results indicate that M. postica presents some features which are typical of solitary life, and also some features which are unusual in solitary bees but have been reported in phylogenetically more apical social species. Our findings open interesting questions on the ecological scenarios involved in the evolution of sociality within the Xylocopinae. © The Royal Society of New Zealand 2008.