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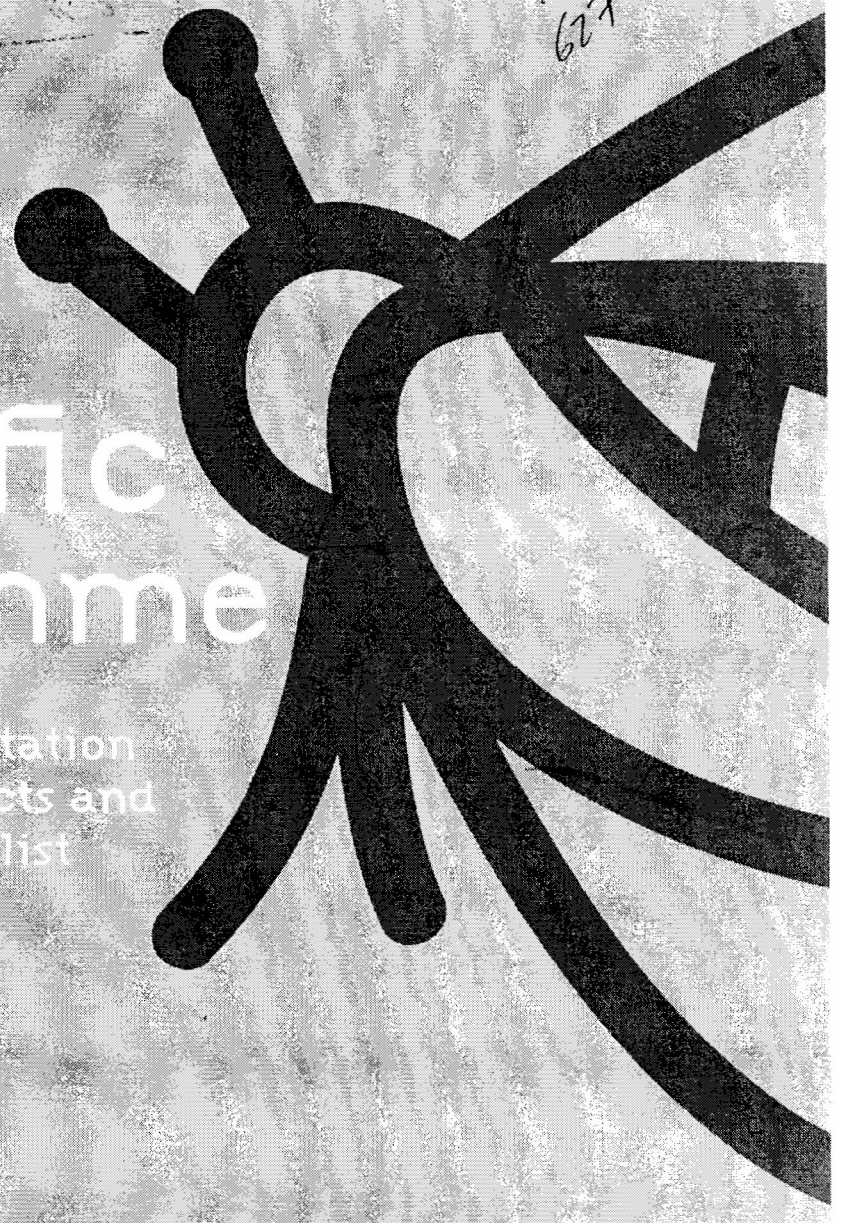

Scientific programme

Oral presentation abstracts and poster list

Sud de France

la Région Languedoc Roussillon

Management of stingless bee, *Melipona fasciculata*, for pollination of solanaceous crops in greenhouses

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The use of bees for pollination of Solanacea, mainly the tomato, is based on the management of *Bombus terrestris*, a species from Europe. However, the introduction of this bee in many regions has generated problems of hybridization and competition with local species. The alternative solution to this problem is the use of native bee species. Among the stingless bees, *Melipona spp* promote buzz pollination. In Eastern Amazon, the cultivation of vegetables in protected environments is favoured, among other factors, mainly by the control of excessive rain, which between February to May reach very high levels of rainfall, thwarting the cultivation of vegetables. In this study *M. fasciculata* was tested as pollinator of *Lycopersicon esculentum*, *Solanum melongena*, *Capsicum frutescens* and *C. annuum*, and excellent results were obtained in both the fertilization of flowers (larger amount of fruits formed in comparison with the open environment), as well as in the adaptation of the colonies to protected conditions. Initially there was a great mortality of forager bees, but five days after the nest opening the workers were adapted to forage inside the greenhouse. *Melipona fasciculata* was efficient both in the pollination of solanaceous with poricide anthers, which needs buzz pollination (tomato and eggplant), and also in the anthers of longitudinal dehiscence (red and sweet pepper). A management plan for *M. fasciculata* as a pollinator of solanaceous in greenhouses is proposed.

Pollination ecology of Katy apricot *Prunus armeniaca L.* in greenhouse

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Flower biology and pollinator foraging activity on Katy apricot (*Prunus armeniaca* L.) in Beijing was investigated to understand the preliminary information of the introduced apricot in the greenhouse cultivation. Honeybee *Apis mellifera* L. and bumblebee *Bombus hypocrita* P. were used as the primary pollinators. The results showed that nectar secretion lasted for 6 days from the flower full open. Nectar production/flower in 24 h is 8.05iÀ2.94ul. Pollen collected from anther, honeybee and bumblebee was determined the viability by TTC (Triphenyl Tetrazolium Chloride) method. There was significant difference among the three collection methods pollen (P<0.05). The pistil receptivity lasting 5 days through the Peroxtesmo Ko paper indicator by converting it into a solution. The receptivity was the highest in the third day after the flower full open. The visitation frequency of honeybee and bumblebee is 7.23iÀo.85 flowers/min and 8.85iÀo.32 flowers/min respectively. Pollen deposition in the stigma by a single visit to virgin flowers were significant different in the two bees pollination. Bumblebee deposited more pollen in the stigma than honeybee. We suggested that *B.hypocrita* was more efficient pollinator for Katy apricot according to comparison the amount of the pollen deposition on stigmas and visitation frequency.

Foraging and pollination behaviour of the African honeybee (*Apis mellifera adansonii*)

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