

Intrinsic colony conditions affect the provisioning and oviposition process in the stingless bee *Melipona scutellaris*

R.A. Pereira¹, M.M. Morais¹, F.S. Nascimento² and L.R. Bego¹

¹Departamento de Biologia, Faculdade de Filosofia, Ciências e Letras de Ribeirão Preto, Universidade de São Paulo, Ribeirão Preto, SP, Brasil

²Departamento de Biologia, Centro de Ciências Biológicas e da Saúde, Universidade Federal de Sergipe, São Cristóvão, SE, Brasil

Corresponding author: F.S. Nascimento

E-mail: fabio.nascimento@pesquisador.cnpq.br

Genet. Mol. Res. 8 (2): 725-729 (2009)

Received December 12, 2008

Accepted January 26, 2009

Published June 23, 2009

ABSTRACT. The cell provisioning and oviposition process (POP) is a unique characteristic of stingless bees (Meliponini), in which coordinated interactions between workers and queen regulate the filling of brood cells with larval resources and subsequent egg laying. Environmental conditions seem to regulate reproduction in stingless bees; however, little is known about how the amount of food affects quantitative sequences of the process. We examined intrinsic variables by comparing three colonies in distinct conditions (strong, intermediate and weak state). We predicted that some of these variables are correlated with temporal events of POP in *Melipona scutellaris* colonies. The results demonstrated that the strong colony had shorter periods of POP.

Key words: Provisioning and oviposition process; Food storage; Stingless bees; *Melipona*