

Occurrence of multiple nucleolus organizer regions and intraspecific karyotype variation in *Scaptotrigona xanthotricha* Moure (Hymenoptera, Meliponini)

O.M.P. Duarte¹, C.C.C. Martins¹, A.M. Waldschmidt² and M.A. Costa¹

¹Departamento de Ciências Biológicas, Universidade Estadual de Santa Cruz, Ilhéus, BA, Brasil ²Departamento de Ciências Biológicas, Universidade Estadual do Sudoeste da Bahia, Jequié, BA, Brasil

Corresponding author: M.A. Costa

E-mail: costama@uesc.br

Genet. Mol. Res. 8 (3): 831-839 (2009) Received March 10, 2009 Accepted May 21, 2009 Published July 21, 2009

ABSTRACT. Scaptotrigona xanthotricha has a wide geographic distribution in the Brazilian Atlantic rainforest. One population from southeast and two from northeast Brazil were analyzed and were found to have chromosome polymorphisms. Although the chromosome number 2n = 34 is conserved in this species, karyotypic analysis revealed clear differences between the three populations. Congruent and ubiquitous multiple nucleolus organizer regions, heterochromatin and CMA₃-positive blocks were found. The variations suggest that this species is in a process of genetic differentiation. This differentiation process might have been enhanced by restricted nesting preferences, combined with recent extensive fragmentation of the

Atlantic rainforest, which limits gene flow between populations.

Key words: Chromosome; Fluorochrome staining; Ag-NOR; Stingless bee