



XIII Congresso de ECOLOGIA

III International Symposium of Ecology and Evolution

Múltiplas ecologias: evolução e diversidade

08 a 12 de outubro de 2017 • UFV - VIÇOSA | MG

MONITORING THE LONG-TERM POPULATION DYNAMICS OF THE ORCHID BEE *Euglossa marianae* Nemésio, 2011 (APIDAE: EUGLOSSINA)

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Tema/Meio de apresentação: Ecologia de Populações/Poster

Forest succession and regeneration are extremely dependent on pollination that, in turn, depends on the long-term maintenance of pollinator populations of different species, including native bees. Euglossine or orchid bees represent some of the most important pollinators in the Neotropic region, pollinating thousands of plant species from numerous angiosperm families and being the main pollinators of about 650 orchid species. In addition, orchid bees are bioindicators of forest anthropization and can be divided in two groups: i) species typically associated to open and/or disturbed environments, such as forest edges or forests in initial successional stages; and ii) species tightly associated to the humid, shady interior of large, mature forests, being absent or rare at forest borders. *Euglossa marianae* belongs to this latter group and is thus highly endangered by human deforestation. Its type locality is the Parque Estadual do Rio Doce (PERD) and its range distribution is fragmented throughout the Atlantic Forest. In order to survey the past population dynamics along its distribution in the Atlantic Forest of Brazil, we developed microsatellites from high-throughput genome sequencing data based on two individuals derived from populations with a geographical distance of about 1.6 thousand kilometers. Using bioinformatic tools a total of 517 microsatellite loci were identified, of which 20 species-specific tetranucleotide repeats were selected to be standardized and validated as polymorphic loci for population analyses. The developed microsatellites allow us to analyze the impact of human deforestation on *Euglossa marianae* populations and will be vital in developing plans for the conservation of this and other important pollinator species of the Atlantic forest.

The authors thank CNPq, FAPEMIG and CAPES for providing grants and scholarships.