

LETTER TO THE EDITOR

Genetic diversity estimation in *Apis mellifera* L. in a queen bee breeding center of Mayabeque Province

Estimación de la diversidad genética en *Apis mellifera* L. en el centro de crianza de abejas reinas de la provincia Mayabeque

Dear Editor:

The biogeographic variability of the bee *Apis mellifera* L. is due to a long evolution process of the species in response to the environmental conditions in its places of origin. This process led to morphological, physiological and behavioral variations which allowed the species to divide into 26 races or subspecies.

Cuban bee was originated by free crossing of the Western European black bee (*Apis mellifera mellifera*) with the Italian yellow bee (*Apis mellifera ligustica*) and, in a much lesser degree, with some Caucasian bee queens (*Apis mellifera caucasica*) from Russia. To our knowledge, only limited morphological and behavioral characterization studies have been conducted on the creole bee, but these studies have not been supported by genetic analyses.

RAPD markers have proven to be useful for studying population genetics, providing an efficient test for the detection of genetic polymorphism so, in order to estimate the genetic diversity of populations of honey bees in the Queen Bee Breeding Center of Mayabeque Province, RAPD tests were conducted with 10 primers (OPA and OPB series). Five of these primers generated a large number of characteristic bands between genotypes from different populations and even between genotypes from the same population. These preliminary results showed that genetic polymorphism in the creole honey bee populations could be determined by using RAPD markers, which will provide valuable information for future management and conservation purposes.

**Anisley Pérez^{I*}, Nadia Martínez^{II}, Odalys Uffo^{II}, Belkis Peteira^{III}, Jorge Demedio^{IV},
Daymara Rodríguez^V**

^IDpto. de Producción Animal. Facultad de Medicina Veterinaria, Universidad Agraria de La Habana (UNAH).
Carretera de Tapaste y Autopista Nacional, San José de las Lajas, Mayabeque, Cuba.

^{II}Laboratorio de Genética Molecular, CENLAC. Centro Nacional de Sanidad Agropecuaria (CENSA). Apartado 10,
San José de las Lajas, Mayabeque, Cuba.

^{III}Laboratorio de Fisiopatología. Grupo de Fitopatología, Dirección de Protección de Plantas, Centro Nacional de
Sanidad Agropecuaria (CENSA). Apartado 10, San José de las Lajas, Mayabeque, Cuba.

^{IV}Dpto. de Prevención. Facultad de Medicina Veterinaria, Universidad Agraria de La Habana (UNAH).
Carretera de Tapaste y Autopista Nacional, San José de las Lajas, Mayabeque, Cuba.

^VLaboratorio de Biotecnología. Facultad de Agronomía, Universidad Agraria de La Habana (UNAH).
Carretera de Tapaste y Autopista Nacional, San José de las Lajas, Mayabeque, Cuba.