EUROPEAN BEES, THEIR MORPHOLOGY AND MICROSATELLITES

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The protection and use of bees´ gene pool in special programs, in rearing and in beekeeping practice cannot omit the description of the belonging to races.

The description of gene types were afore based only on pedigree records and phenotypical, morphometric analysis. The new feature for the genotype description is the microsatellite analysis.

DNA was isolated from of worker bees conserved after the taking by drying, freezing or by inserting into 75% ethanol. Isolation was carried out on ABI 3100 Nuclei Acid Preparation Station using NucPrep™ Chemistry method. The analysis was based on tests of 14 locuses assembled in four multiplexes [A29, Ap33, Ap36, Ap43],[Ap1, Ap12, Ap55],[A37, A7, A8],[Ap113, Ap16, Ap19, Ap34]. In this way > 600 bees were analysed various geographical races [carnica, mellifera, ligustica] from various regions.

The applied method offers data for very detailed discrimination of distances among populations.

The results were compared and completed by morphometric analysis of wings using DAWINO method. The method of microsatellite analyzes is a good tool for very detailed discrimination of distances among populations.

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