

## **BIODIVERSITY EVALUATION AND PRESERVATION OF ITALIAN STONE FRUIT GERMPLASM (PEACH AND APRICOT) IN SOUTHERN ITALY**

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*Prunus species, local biodiversity, microsatellite transferability, genetic and phenotypic characterizations*

The *Prunus* genus encompasses a group of economically important and closely related crops, sharing an essentially common genome and, thereby, a high level of conserved and transferable microsatellite (SSR) loci. In Southern Italy, many of the local and/or neglected varieties are abandoned and at risk of extinction due to the high degree of urbanization and agricultural intensification, despite their value as genetic resources for crop improvement. This research aimed to genetically and morphologically characterize the traditional apricot (*P. armenica*) and peach (*P. persica*) germplasms collected in old family orchards. Most of the official descriptor categories were scored, thus revealing a rather high level of phenotypic variation in both collections. Genetic data allowed the discovery of diversity masked by morphological traits. Genotyping in 15 and 18 SSRs, eight of which were transferable across both species, showed an average polymorphic informativeness (PIC) of 0.44 and 0.59 for apricot and peach, respectively, and a total of 70 and 144 alleles. A reliable identification of each genotype was achieved, and the presence of possible mislabeling and/or erroneous denominations was solved. These results are encouraging for the valorization of the still poorly explored Italian *Prunus* germplasm, with significant economic consequences for bioresource conservation and management.