

Evaluation of Genetic Diversity in Iranian Native Silkworm *Bombyx mori* Using RAPD (Random Amplification of Polymorphic DNA) Molecular Marker

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Abstract : RAPD molecular markers in order to discrimination of the Iranian native *Bombyx mori* silkworm breeds were used. DNA extraction using phenol - chloroform was and the qualitative and quantitative measurements of extracted DNA and its dilution, the obtained bands on agarose gel 1.5 percent were marked and analyzed. Results showed that the bands are observed between 250-2500 bp and most bands have been observed as Gilani-orange, the lowest bands observed are Khorasani-lemon. Primer 3 with 100% polymorphism with the highest polymorphism and primer 2 with 61.5 polymorphism had the lowest percentage of polymorphism. Cluster analysis of races and placed them in three main groups, races Gilani - orange, Baghdad and Khorasani -pink if the first group, camel's thorn, Herati - yellow race was alone in the second group and Khorasani - lemon was alone in the third group. The greatest similarity between the races, between Khorasani- pink and Baghdad (0.64). RAPD markers have been determined different silkworm races based on various morphological or economic characteristics except geographic origin.

Keywords : silkworm, molecular marker, RAPD, Iran

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