عنوان مقاله:

Study of Genetic Variation in Three Species of Hypnea J.V. Lamouroux (Cystocloniaceae, Gigartinales) Species Using ISSR Markers

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خلاصه مقاله:

Hypnea species were found in southern coasts of Iran. This genus is an important red alga which comprises about ۵۳ species world-wide and has a wide geographical distribution on the tropical shores around the world. In Iran, about ۱۰ species of this genus has been reported from subtidal zone of Persian Gulf and Gulf of Oman coasts. The present study considers assessment of genetic diversity of ۱۰ populations of ۳ species of Hypnea by using ۶ ISSR primers. Genetic diversity parameters were determined among populations. The genetic divergence of the studied populations was checked by Neighbor Joining (NJ) and Principal component analysis (PCA). Genetic differentiation of the studied species and populations was studied by AMOVA (Analysis of molecular variance) test. The Mantel test was performed to study association between molecular distance and geographical distance of the studied populations. Grouping of the populations by NJ clustering separated the studied species in ۲ distinct clusters. The most populations of H. musciformis formed a separate cluster and were placed far from the other species. H. ecklonii and H. cornuta showed some degree of relationship and were placed close to each other. AMOVA test showed significant genetic difference among populations. The Mantel test did not show correlation between the genetic distance and geographical distance .of these populations

کلمات کلیدی:

ISSR, southern coasts, Mantel test, genetic diversity, Hypnea