



Studying the genetic diversity of pipefish population in Caspian Sea using nuclear genome

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Recently study on mitochondrial genome of genus *Syngnathus* of pipefish in two lagoon regions and open sea in southern Caspian Sea has illustrated that there are significant morphological differences between two region population, in spite of that they reveal no differences genetically. In comparison with Mediterranean and black sea species, many genetic and morphologic differences have been detected. In terms of exploring this claim, we investigate the genetic diversity of these aquatic animals in the same areas using locus A1 of nuclear genome. Consequently, the results show that pipefish of these two regions were similar based on this particular locus and different with other available species in Europe. The only difference is in total body and snout length.

Keywords: Phylogenetics, Genomics, Behavioural ecology, nuclear genome, *syngnathus* genus, morphologic, locus A1