The Molecular Identification of four Species of Gastropoda on Rocky Shores of the Persian Gulf

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Abstract

In this study molecular identification of four species of Gastropoda have been studied based on mitochondrial genes, COI and 16S rRNA in the present work for the first time in the northern rocky coastal zones of Persian Gulf during years 2013 and 2014. *Planaxis sulcatus, Cerithidea cingulate, Siphonaria savignyi* and *Onchidium peronii* Identified. After morphological identification, DNA extraction, amplifying partial of cytochrome oxidase COI and 16S rRNA and sequencing procedure were done in the laboratory. In this study 6 COI and 3 16S rRNA sequencing belonging to these species were measured and reported for the first time. Also, phylogeny analyses with drawing phylogeny trees of Maximum Likelihood and Maximum Parsimony were done using MEGA6 and PAUP softwares. The result showed that molecular and morphological studies have the same results for this species. Also sequences from both COI and 16S rRNA did not show difference in identification and topology of phylogeny trees.

Keywords: *Planaxis sulcatus, Cerithidea cingulate, Siphonaria savignyi, Onchidium peronii*, Cytochrome Oxidase I, 16S rRNA, Persian Gulf.