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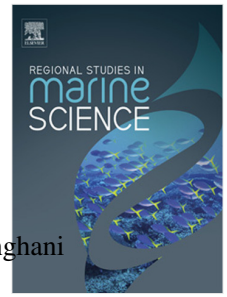

Molecular identification of zoantharians from around Hormuz, Qeshm and Kish islands, the Persian Gulf

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Molecular Identification of Zoantharians from around Hormuz, Qeshm and Kish Islands, the Persian Gulf

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Abstract

Zoantharians have an important ecological role in marine ecosystems. However, only a few studies have been conducted on the zoantharians of the Persian Gulf (PG). In the current study, mitochondrial 16S ribosomal DNA (16S rDNA) and cytochrome oxidase subunit I (COI) regions of zoantharian colonies from Hormuz, Qeshm and Kish islands were amplified by polymerase chain reaction (PCR) and directly sequenced. Based on obtained 16S rDNA and COI gene sequences, three species-level clades were identified including *Zoanthus sansibaricus*, *Palythoa tuberculosa* and *Palythoa* aff. *mutuki*, all of which have been previously reported from the PG. In spite of morphological similarity of *Palythoa* aff. *mutuki* to *Palythoa mutuki*, mitochondrial DNA sequences obtained from these specimens resolved in a highly supported species-level clade. Since zoantharian identification studies are scant in other parts of the PG, further studies using both nuclear and mitochondrial markers are required to investigate the origins of this putative new species and to further complete the knowledge of zoantharian diversity in the region.