



Unialgal culture of *pseudonitzschia* (Bacillariophyceae) species a Domoic Acid (AD) toxin producer, local of Oman Sea

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Abstract

Diatom *pseudonitzschia* is a poisonous genus of family Bacillariaceae causing harmful algal bloom in coastal waters in many parts of the world. At the time of bloom, these diatoms produce domoic acid and neurotoxin that by creating ASP syndrome can change ecosystems equilibrium following mortality of important groups like marine mammals and seabirds. In addition, it can threaten human health via food chains. Several cases of neurological disorder observed in humans 48 hours after consuming shellfishes. During the sampling of coastal waters of Chabahar Bay in February 2019, *pseudonitzschia sp.* was seen. In this study, seawater samples were collected for identification and isolation of *pseudonitzschia* like phytoplanktons. Then, the samples were transferred to petri dish including f2 media and pure isolation was maintained in the phycolab at 12:12 lighting: darkness period at 25 C°. Morphological observations showed the purified sample was most similar to *Pseudonitzschia australia*. Due to economic damages of HAB phytoplanktons to the aquaculture industry and threatening health of environment and humans, it is necessary to identify their morphology and phylogeny accurately.

Keywords: Isolation, Phytoplankton, Chabahar Bay, *pseudonitzschia*