



GENETICS OF ALIEN PUFFERFISH POPULATIONS ALONG THE TURKISH LEVANTINE COAST

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Abstract

Eastern Mediterranean Basin is invaded by Indo-Pacific originated alien species. Most of these aliens show abundant populations along the Levantine coast of Turkey, which is also observed in four alien Tetraodontidae species; *Lagocephalus sceleratus*, *Lagocephalus suezensis*, *Lagocephalus guentheri* and *Torquigener flavimaculosus*. In order to investigate the population genetic structure of these species 70 specimens (*L. sceleratus* 14; *L. suezensis* 20; *L. guentheri* 16; *T. flavimaculosus* 20) were collected from 15 stations in Hatay, Mersin and Antalya. 642 bp of the mitochondrial cytochrome c oxidase subunit I sequence were analyzed. Each species showed distinct sequences which enables to easily identify specimens from COI sequences. No haplotype diversity was found in *L. sceleratus* and *Lagocephalus suezensis*, and only two haplotypes with 3 base difference (<1%) was observed in *Lagocephalus guentheri*. Whereas, *T. flavimaculosus* showed large haplotype diversity, 15 haplotypes were found in 20 specimens. Low genetic diversity due to founder effect is something expected in alien species, which form established populations starting from few individuals. However, haplotype diversity observed in *T. flavimaculosus* indicate that it might have entered the Eastern Mediterranean many times or few times but in large quantities.

Keywords: COI, alien, Tetraodontidae, Turkey, founder effect