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Genetic identity of eutetrarhynchids from the Persian Gulf, with intraindividual and intraspecific variability of *Prochristianella butlerae* Beveridge, 1990

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Abstract

The examination of the two batoid species, *Pastinachus sephen* (Forsskål) and *Himantura gerrardi* (Gray), resulted in a morphologic identification of the five eutetrarhynchid species, namely *Parachristianella indonesiensis* Palm, 2004 reported for the first time from *Himantura gerrardi*, *Pa*. *monomegacantha* Kruse, 1959, *Prochristianella clarkeae* Beveridge, 1990, *Pr*. *butlerae* Beveridge, 1990 and *Dollfusiella spinulifera* (Beveridge et Jones, 2000). By sequencing the partial 28S rDNA and calculating the genetic distances between the morphologically identified specimens from the Persian Gulf and their allopatric morphological conspecifics as well as using a phylogeny, the specimens of the Persian Gulf were considered as the allopatric conspecifics of *Parachristianella indonesiensis*, *Pa. monomegacantha* and *Prochristianella clarkeae*. Since the specimens of *Dollfusiella* from the Persian Gulf and *D*. *spinulifera* from Australia had a high genetic distance and placed in two separate clades, the Iranian specimens of *Dollfusiella* were treated as the cryptic species of *D*. *spinulifera*. Following the treatment of *Prochristianella macracantha* Palm, 2004 as the synonym of *Pr*. *butlerae* Beveridge, 1990, it was also expressed that although *Pr*. *butlerae* appeared to be a variable species in terms of its metric data, there was an identical oncotaxy in all the conspecifics. A detail examination of the specimens from the Persian Gulf as well as Australian voucher specimens revealed a great intraindividual and intraspecific variability in this species. Since, the sequence information is only available for the Iranian specimens and there is no possibility to evaluate the genetic distance and their monophyly, we consider these two allopatric populations as one species.

Key words: Eutetrarhynchidae, genetic distance, morphological variation, phylogeny, cryptic species.

1. Introduction