

Stock identification (*Acanthopagrus arabicus*) in Persian Gulf and Oman Sea by using geometric morphometric

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Abstract

In this study, the stock identification of (*Acanthopagrus arabicus*) as the dominant species of the genus was carried out by geometric morphometric in the fishing grounds and landing sites of the west and east part of the Hormuz Strait from June 2014 to May 2016. 17-point markers (Landmarks) on the left side of the body of *A. arabicus* were determined and extracted in order to analyzing body shape data. Body shape analysis was showed the most variations on the head and top of the body and significant differences of body shape were proved between west and east of Strait of Hormuz ($P < 0.05$). Landmark positions in the samples of the west Strait of Hormuz were indicated the decrease of body depth, increase of head length, leaning of base, pectoral and ventral fin to upper part of the body, meanwhile it was contrary in the samples of the east. CVA correlation analysis showed a significant difference in body shape in the west and east of the Hormuz Strait ($P < 0.0001$), so the individuals were shown differences and the stocks of this species were separated in the west and east of the Hormuz Strait.

Keywords: (*Acanthopagrus arabicus*), Stock, Geometric morphometric, Landmark Persian Gulf and Oman Sea.