

9. Tuset, V. M, Lombarte, A., Assis, CA., Scientia, 2008. Otolith atlas for the western Mediterranean, north and central eastern Atlantic.

### Morphological comparison of Otolith in taxonomic identification of two species of Serranidae (Serranidae: Teleostei) in the Persian Gulf

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Grouper have a high economical valuable for fisheries and, most recently, due to indiscriminate harvesting they are quickly replaced without regard to species that are threatened and endangered species. The demographic study and management of these populations can be an effective step in improving the current situation. Since it cannot be relied on to detect their morphological characteristics, this study attempted to examine the otoliths as a way to identify and analyze a population of some species Serranidae. In this research, taxonomic importance of hard structures otoliths were studied where two species *Epinephelus coioides* and *Epinephelus bleekeri* were captured, from Bandarabbas, and were then fixed in 75 % ethanol. In the laboratory, otoliths were extracted and their morphological and intraspecific variations were studied. The results showed that the morphology of this structure can be useful in separating Serranidae. Also, morphological structure of the otolith can used to identify and separate species and population studies, according to the results. Therefore, the study of the otolith can play an important role in solving fish taxonomic and phylogenetic problems. This study can provide conservation programs for some organizations, such as Environment and Fisheries.

**Keywords:** Taxonomy, Otolith, Hard structures, Serranidae, Grouper, Persian Gulf.