

عنوان مقاله:

(Age and growth of Sind sardine (*Sardinella sindensis*) using otolith from Qeshm Island (Persian Gulf)

محل انتشار:

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خلاصه مقاله:

This is the first study of growth and age of *Sardinella sindensis* from coastal waters of Qeshm Island (Persian Gulf) based on the sectioned otolith reading method. In total, ۱۲۸ fishes were collected randomly from purse seine commercial nets during March ۲۰۱۱ to February ۲۰۱۲. The annual formation of the growth rings were determined by counting the opaque and translucent zones occurrence at the outer margin of the otolith. The peak of opaque and translucent zones formation occurred in June and January, respectively. There was no significant differences between the sex ratio of males to females ($p > 0.05$). The total length and body weight for both sexes ranged between (۷.۹-۱۸.۶ cm) and (۳.۹۸-۵۵.۶۹ g). In total, four age classes were determined, and the maximum age was recorded as ۳.۵ years. The most abundant individuals were counted in ۱+ age class, while the least number of fishes belonged to the ۳+ age class. The non-linear regression relationship between the length and age for combined sexes were fitted in Von Bertalanffy growth equation, and described as: $TL = ۲۰.۸ (1 - e^{-0.54(t + 0.54)})$. There was a strong relationship between the body weight and total length of the fishes ($p > 0.05$), indicating that the growth type of *S. sindensis* is isometric. From the results of this study we concluded that *S. sindensis* is a fast-growing species with a short-life span. In order to obtain more reliable results about the age and growth of this species, we suggest that different methods of age determination should be used, combined with the evaluation of the factors affecting its growth for the management of optimum exploitation of the resources of this fish.

کلمات کلیدی:

Age, Growth, Otolith, *Sardinella sindensis*, Persian Gulf

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