



Reproductive Biology of the Areolate Grouper *Epinephelus areolatus* from the Gulf of Suez

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Abstract

Groupers (Serranidae: Epinephelinae) are major targets of artisanal, recreational and commercial fisheries in the Gulf of Suez and Red Sea. Groupers are typically long lived and slow-growing, and have many assembles in large numbers to spawn. In the present study some aspects of the reproductive biology of *Epinephelus areolatus* collected monthly during November 2013 to October 2014 from the main landing sites in the Gulf of Suez were investigated. During the whole period of investigation females accounted 87.2 % of the total fish sampled with sex ratio of 1: 6.8. The monthly analysis of the gonado-somatic index (GSI) values showed that the spawning season of *E. areolatus* was restricted to the period from June to August for both sexes. The size at which 50% of fishes are mature was 24.3 cm for males and 25.5 cm for females, referring this length to the corresponding age; it was found that *E. areolatus* attains the first sexual maturity at 2.04 years for male and 2.23 years for female. The absolute fecundity varied from 169,952 to 1,433,022 with an average 523,246 ova and the relative fecundity ranged from 7,081 to 32,569 for lengths between 24.0 and 44.0 cm TL.

Keywords:

Sex ratio, spawning season, fecundity, *Epinephelus areolatus*, Gulf of Suez.
