

Reproductive Biology of the common Guitarfish, *Rhinobatos rhinobatos* (Linnaeus, 1758), in the South-Eastern Mediterranean

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The common guitarfish, *Rhinobatos rhinobatos*, are ovoviviparous fish which are abundant in the Egyptian Mediterranean waters. The present study indicated that *R. rhinobatos* reached maturity at 70 and 85 cm TL for males and females respectively. This finding is in full agreement with the results of Capape and Zaouali (1981) on the same species along the Tunisian coasts. The maximum sizes recorded in the present study were 172 cm for males and 181 cm TL for females. Mating occurs during the period from July to September. Two ovulation periods exist, one in spring and the other in autumn; two broods are born year. Ova were observed in the uteri of all examined females shortly after parturition, which means that two broods are born each year. Active vitellogenesis observed in the ovary of pregnant females have been mentioned before by various authors. McEachran and Capape (1984) mentioned that *R. rhinobatos* are ovoviviparous fishes with one or two litters per year, of 4-10 embryos. Capape (1985) mentioned that Rhinobatidae are among the Selachians that reproduce several times per year. The species studied have a gestation period extending for 6-9 months. Active vitellogenesis in the ovaries was observed during the first gestation period (March-August), while in the second gestation period (August-October), vitellogenesis stopped. During the present study the largest embryo recorded was 30.2 cm, while the smallest one was 24.5 cm TL at birth. This means that size of the new born varies between 24 to 31 cm TL. Capape et al. (1976) reported that the size at birth for *R. rhinobatos* was about 29 cm TL. The average ovarian fecundity for *R. rhinobatos* according to the present analysis was 17.6 eggs, while the uterine fecundity was 11.8 (based an calculations from the two ovaries and the two uteri). Along the Tunisian coasts, Capape (1985) reported that the ovarian fecundity reached 6 eggs for *R. rhinobatos* and 6-9 for *R. cemiculus* while the uterine fecundity was 4-6 eggs for *R. rhinobatos* and 5-8 for *R. cemiculus*. However, this author did not explain whether his calculation were based on two or one ovary or uterus. Several authors have reported relationships between number of embryos and mother size suggesting that the bigger individuals produce more litters . The present study reveals the presence of a linear correlation between ovarian fecundity and mother size.

References :

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