

# SEXUAL CYCLE OF SKIPJACK TUNA (*KATSUWONUS PELAMIS*) FROM THE WESTERN INDIAN OCEAN.

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## ABSTRACT

*Some aspects of the reproduction of skipjack tuna (*Katsuwonus pelamis*) in two different areas of the western Indian Ocean has been studied from February 1989 to February 1994. From samples done either at sea, on board purse seiners based at Seychelles Islands (1656 fish), or at the tuna cannery of Mauritius (4152 fish), the different stages of the sexual cycle have been specified.*

*The monthly variation of the proportion of different maturity stages of gonads assessed by gross visual examination shows that, whatever the month, there is always 70% of sampled females which have ovaries in terminal stage of maturation (stage IV). The minimum is observed in July and August, corresponding to the end of the southeast monsoon.*

*The variations of the gonadosomatic index indicate that the reproduction of this species is effective all during the year with some periods of more intense sexual activity. Size at first maturity for female is 41-42 cm, and, 42-43 cm for males, corresponding approximately to 1.5 years old.*

*For the 737 studied females, histological examinations demonstrate that postovulatory follicles (indicators of a recent spawning) are present during the two monsoon seasons, northwest monsoon (from November to March) and southeast monsoon (from beginning of June to end of August). The percentage of ovaries with atretic follicles is maximum during the two inter-monsoon seasons (April-May and September-October).*

*For all the Indian Ocean, the sex ratio study presents equal proportions of males and females (1 : 1) but for some areas, important monthly variations can be observed in relation with the sexual cycle.*

