

**MATURITY AND FECUNDITY OF YELLOW SEA BREAM
(*DENTEX TUMIFRONS*) IN THE SOUTHERN AREA OF
THE EAST CHINA SEA AND THE
NORTHERN AREA OF THE SOUTH CHINA SEA**

HSI-CHIANG LIU and MAO-SEN SU

*Demersal Fish Resources Research Center, Institute of Oceanography,
National Taiwan University*

(With 10 figures)

ABSTRACT

Studies on maturity and fecundity of yellow sea bream were based on samples caught by the Taiwan bull trawlers operated in the southern area of the East China Sea and the northern area of the South China Sea from January 1970 to January 1971. Frequency distributions of ova diameters demonstrated that the maturity factor could be used as a tool for measuring the ripeness of the fish. The monthly change of maturity factors suggested that the spawning season in the northern area of the the South China Sea is from December to March. For the southern area of the East China Sea two spawning seasons are suggested, one around June and the other from October to November. Fish in these two areas became mature when they grew to about 140-160mm in fork length. In each area, the female outnumbered the male before the fork length reaches 230-250 mm, however the male outnumbered the female beyond this size. The fecundity of the fish was greater in the southern area of the East China Sea than in the northern area of the South China Sea.

INTRODUCTION

The yellow sea bream (*Dentex tumifrons* TEMMINCK et SCHLEGEL) is one of the economically important products of trawl fisheries of Taiwan. According to the statistics of the catch and effort (Liu et al, 1970), the southern area of the East China Sea, the southern area of Hainan, and the Gulf of Tongking are the main fishing grounds of the yellow sea bream. A number of works have been carried out on the reproduction of the yellow sea bream from the East China Sea (Murayama, 1949; Otsuru, 1949; Oka, 1953; Shindo and Aoyama, 1954; Aoyama, 1955; and Shindo, 1960). However, very few papers concerning the reproduction of the yellow sea bream in the South China Sea have been published. Since the beginning of 1970, Demersal Fish Resources Research Center of Institute of Oceanography, National Taiwan University has conducted resources research on the demersal fishes in the East and South China Seas. Studies on the fishery biology of the yellow sea bream are being conducted currently. The present paper deals with the maturity, spawning, biological minimum, sex ratio, and fecundity of the said fish in the southern area of the East China Sea and the northern area of the South China Sea.