

The Reproductive Biology of *Pampus candidus* Fish in Iraqi Marine Water Located in the North-Western Region of the Persian Gulf

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ABSTRACT

The silver pomfret fish *Pampus candidus* (Previously known as *Pampus argenteus* Euphrasen) was collected from Iraqi marine waters in the northwest Persian Gulf between April and December 2021, using gillnet and demersal trawling. The lengths and weights of fish were recorded, along with data on the initial maturity length, sex ratio, gonadosomatic index (GSI), Dobriyal index, gonad maturation, development cycle, and absolute fecundity rate. The forked length of female individuals varied from 248 to 281mm, whereas that of male individuals ranged from 124 to 194mm. In July, young fish began to appear. Male individuals had a somehow shorter period of sexual maturity compared to female counterparts. Furthermore, it is noted that males tend to be generally less in size compared to females. The length at first maturity female and male was recorded as 203 and 115mm, respectively. The sex ratio tends to increase for males, and there were two peaks in the rise of the gonadosomatic index and Dobriyal's index, which indicate two periods of spawning activity during June and September. Six stages of fish maturity have been identified, with differences in the size of the eggs. They had a long and continuous breeding season that lasted from May to November, and they spawned by releasing eggs in batches. Notably, they have two distinct reproductive periods: The first during May and June and the second during October and November. The relationship of fecundity with weight was found to be more representative than with length. The document mentions that the silver pomfret spawning and nursery areas are adjacent to the Shatt al-Arab discharge area.

INTRODUCTION

The silver pomfret fish, *Pampus candidus* (Previously called *Pampus argenteus* Euphrasen), belongs to the family Stromateidae and is known locally in Iraq as Zobaidy. It tops the list of important species in Iraqi marine fisheries and is considered the most valuable fish in terms of price value and economic return in the region and the world (Wei *et al.*, 2021). Therefore, attention was paid to studying it from all aspects of biology and dynamics. The silver pomfret fish are distributed throughout the Persian Gulf and Oman Sea, extending East to India and Bangladesh in the northern Indian Ocean (Pati, 1982; Kagwade, 1988; Rhman, 2004; Radhakrishnan *et al.*, 2019). It has also been