Length-weight relationship and condition factor of silver pomfret *Pampus argenteus* (Osteichthyes: Stromatidae) in Iraqi marine waters northwest of the Persian Gulf

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Abstract
Length-weight relationship (LWR) and relative condition factors are important in fisheries assessment studies as they provide insight into the growth, general health and fitness of fish in the marine environment. The silver pomfret (*Pampus argenteus*) is considered an important economic species in the northern Persian Gulf region. The length-weight relationship and condition factor were examined for 324 specimens, in an average length range of 65–320 mm, comprising males, females, and juveniles from Iraqi territorial waters in the northwestern Persian Gulf, between April and December 2024. The relationship between length and weight was calculated separately for females, males and juveniles, as well as for both sexes combined. The b values were (3.2552, 3.0642, 2.9836, 3.2588), indicating positive allometric growth in females and isometric growth in both males and juveniles, as well as in combined groups of fish. A significant difference between males and females was identified. The rating value (R2) was almost equal among all individuals, measured at 0.9446 for females, 0.9736 for males and 0.9854 for the total population. The mean relative position factor (Kn) for females was 1.00 (±0.097) and ranged from 0.78–1.32, for males it was 1.02 (±0.080) and ranged from 0.82–1.26, while for juveniles it was 1.01 (±0.197) and 0.7 d from 0.7 This showed that there was no significant statistical change between months, with the female pomfret showing peak rates until the end of the breeding season in October. This study is important to identify important life characteristics of the silver pomfret population when they enter Iraqi marine waters for breeding, which may help in the design of management policies for this species.

Keywords: Length-Weight Relationship, Relative Condition Factor, *Pampus argenteus*, Persian Gulf

Introduction
The silver pomfret, *Pampus argenteus* (Euphrasen 1788), is a commercially significant fish in the northern Gulf place, especially in Iraq, in which it's far notably favored through purchasers and instructions premium charges in neighborhood fish markets. This species is benthopelagic and migratory within the Oceanodromous maritime quarter (Riede, 2004). Silver pomfrets inhabit colleges and are allotted throughout numerous waters globally, inclusive of the Gulf location. The essential fisheries in Iraq are placed in the Khor Al-Amaya and Khor Abdullah regions (Qasim and Al-Zaidy, 2024). One species of silver pomfret, *Pambus candidus* (formerly *Pambus argentius*), constant with Wei *et al*. (2021), is known as (zobaidy) within the nearby Iraqi and Kuwait dialect. Length and weight statistics for any fish species are crucial and provide crucial records applied in fisheries control studies and inventory assessment (Le Crane, 1951). Growth parameters, in conjunction with (LWRs) and relative condition factor (Kn), delineate differences in demographics, biological characteristics, and habitat conditions among fish species (Kovach and Coop, 1996). It is also used to estimate a specimen's weight from its length,