

## Assessment of dimorphic growth of the cuttlefish *Sepia pharaonis* (Cephalopoda: Sepiidae) using cuttlebone markings from the south-eastern Arabian Sea

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The pharaoh cuttlefish *Sepia pharaonis* Ehrenberg, 1831, is one of the most important species exploited along the Eastern Arabian Sea. A study on the relationships between dorsal mantle length (DML) and number of cuttlebone septa (or chambers) and between total body weight and number of cuttlebone septa were carried out in *S. pharaonis* collected from the south-eastern Arabian Sea. The cuttlefish samples were collected from Cochin Fisheries Harbour (133 males and 67 females). Dorsal mantle length-at-chamber count and weight-at-chamber count were statistically

higher in males than in females. The available literature suggests that females of *S. pharaonis* are heavier than males while males are found to attain greater ultimate lengths throughout the lifecycle. Literature also suggests that the rate of cuttlebone septum formation is the same in both sexes of *Sepia* species, however in the present study, *S. pharaonis* males have slightly higher growth rates than females (Fig. 1 & 2). The study indicates that there is considerable scope to use cuttlebone chamber counts as a means of determining actual age of cuttlefishes.

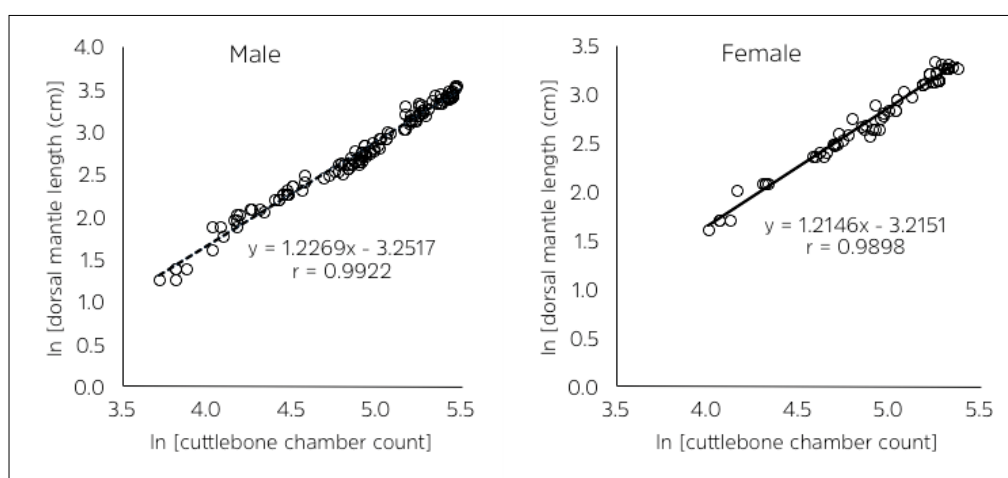


Fig. 1. Relationship between dorsal mantle length (DML) and cuttlebone chamber count (CN) for males and females of *Sepia pharaonis*. Log-transformed data with regression lines.

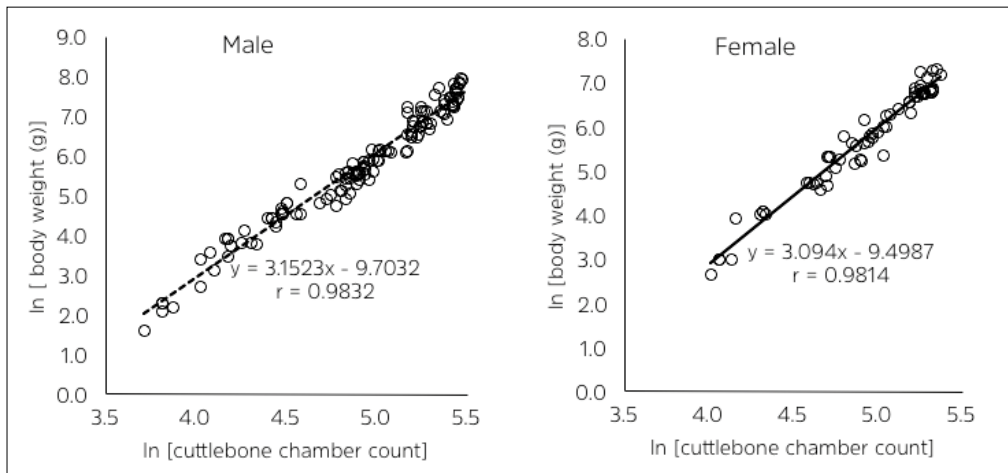


Fig. 2. Relationship between body weight and cuttlebone chamber count (CN) for males and females of *Sepia pharaonis*. Log-transformed data with regression lines.