

Reproductive characteristics of squid *Sepioteuthis lessoniana* (Lesson, 1830) from the Northern Coast of Sri Lanka

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Abstract

The present study was carried out to understand some reproductive characteristics such as spawning season, variation in maturation indices with months, fecundity, sperm count and relationships between various measurements and mantle length of tropical *Sepioteuthis lessoniana* from the Northern coastal waters of Sri Lanka. A total of 797 specimens of *S. lessoniana* (404 males and 394 females) were collected from commercial catches of squid fishery and analyzed. The dorsal mantle length of male *S. lessoniana* ranged from 4 to 26 cm while females ranged from 3.8 to 24.3 cm. According to the morphological appearance of gonads males were categorized into immature, maturing and fully mature whereas females were categorized into immature, maturing and spawning. High occurrence of spawning stage in squids was observed in August, October, November and March. Fecundity increased exponentially with mantle length from 20 (7 cm mantle length) to 793 (26 cm mantle length). The least square linear regression analysis expressed that there are positive, significant ($p < 0.001$) relationships for ovary weight, nidamental gland weight and oviducal gland weight with the mantle length in females and for total weight, testis weight and spermatophoric complex weight with mantle length in males. It was concluded that *S. lessoniana* spawns more than once, exhibits group-synchronous ovulation and intermittent terminal spawning. Peak or intense spawning of this squid in Northern coast of Sri Lanka is during March, August and October to November.

Author keywords

Fecundity; Group-synchronous. *Sepioteuthis lessoniana*; Nidamental gland weight; Spawning

Indexed keywords

GEOBASE Subject Index: fecundity; maturation; mollusc; reproductive success; spawning

Regional Index: Asia; Eurasia; South Asia; Sri Lanka

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