

(抄録)

ケンサキイカ幼稚仔における色素胞配列と発光器の形成状況

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Chromatophore arrangement and photophore formation in the early development of swordtip squid *Uroteuthis (Photololigo) edulis*

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商業的に重要種であるケンサキイカは、近年漁獲量が減少しており、資源管理が求められている。しかしながら、本種は孵化初期段階における形態学的な知見が不足している。本研究では飼育実験で得た外套背長2.2-13.6mmの幼稚仔を観察し、本種特有の7つの色素胞配列と、腹側墨汁嚢上にある一対の発光器を孵化直後(2.2mm DML)から発見した。また約7-9mm DMLの幼稚仔では色素胞数の著しい増加と、発光器の顕著な成長が観察され、本時期がパララーバから幼体への移行期と推察された。本結果は、日本近海において形態的特徴から本種幼稚仔の種同定を可能とし、稚仔の空間的分布や季節的移動、産卵場の推定に役立つと考えられる。

The commercially valuable swordtip squid *Uroteuthis (Photololigo) edulis* has recently experienced a decline, indicating a need for its management. However, very little is known about its morphology during early developmental stages. Therefore, in this report, we describe the chromatophore arrangement and photophore formation in laboratory-reared specimens ranging from 2.2 to 13.6 mm in dorsal mantle length (DML). We observed seven characteristic chromatophore arrangements and a pair of photophores on the ventral surface of the ink sac in the five developmental stages after hatching, which allow U.

edulis hatchlings and paralarvae to be distinguished from other sympatric loliginid squids around the coastal area of central Japan. We also found an increase in the number of other chromatophores and rapid growth of the photophores between 7 and 9 mm in DML, which marks the transition between the paralarva and juvenile stages. These findings will be useful for identifying U. *edulis* hatchlings and paralarvae from natural plankton samples, thus contributing toward research on the spatial distribution, seasonal migration, and predicted spawning grounds of this species.