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Spawning habitat selection of Pharaoh cuttlefish, *Sepia pharaonis* (Cephalopoda: Sepiidae) in artificial culture

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Cephalopods are one of the potential candidates of aquaculture species in the future. Pharaoh cuttlefish, *Sepia pharaonis*, is one of important fishery resources in southeastern Asia. Spawning habitat of aquatic species is crucial for successful seed production. In the present study, we raised mature and paired pharaoh cuttlefish in different culture conditions and observed their selection of spawning habitats. Pharaoh cuttlefish deposited their eggs onto the nets when raised in the cage culture system. They also delivered eggs onto the plastic nets when raised in the fiber reinforced plastic (FRP) tanks without any substrata. To study the spawning habitat preference of Pharaoh cuttlefish, we designed a 4 m-long tempered glass aquarium consisted of two 2x1.2x1.2 m aquarium with coral reef stones and sands as substrata respectively. A plastic net was hung in each aquarium and the two aquarium was connected by an oval opening allow cuttlefish to pass through. Interestingly, all cuttlefish deposited eggs onto the coral reef stones and no egg on the plastic nets and sand substrata was observed. In conclusion, coral reef stones might be the better choice of substrata for artificial propagation of pharaoh cuttlefish due to its similarity to their natural spawning habitat in the intertidal waters, though the exact mechanism how Pharaoh cuttlefish select the spawning habitat still need to be further studied.

Biography

Mong Fong Lee is currently working in Department of Aquaculture, National Penghu University of Science and Technology, Taiwan.

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