

Biodiversity Record: Nest of an elongate oyster blenny

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Subjects: Elongate oyster blenny, *Omobranchus elongatus* (Teleostei: Blenniiformes: Blenniidae); Hooded oyster, *Saccostrea cucullata* (Mollusca: Bivalvia: Ostreidae).

Subjects identified by: Kelvin K. P. Lim and Tan Siong Kiat.

Location, date and time: Singapore, Sentosa Island, northeastern shore; 15 December 2020, 1730–1830 hrs.

Habitat: Marine. Littoral zone of rock bund, exposed by receding tide, about one metre above the water level.

Observers: Tan Siong Kiat and Muhammad Dzaki bin Safaruan.

Observation: A dead oyster was dislodged from a rock, and in it was a blenny (Fig. 1) of 52.7 mm standard length (measured from the tip of the snout to the base of the caudal fin). While processing the oyster specimen in the laboratory later, the interior of each shell valve was observed to be coated with a layer of orange-coloured material (Fig. 2). Upon magnification, the layer was discovered to be fish eggs, almost certainly associated with the blenny. The eggs were in various stages of development (Fig. 3). The clear orange eggs appear to be most recently laid. Eggs with black chromatophores seem to have been laid earlier. Eggs with orange yolks and eyes are more developed, and eggs with eyes would be the oldest. Eggs that are clear are probably unfertilised, or have already hatched.



Fig. 1. Ex situ lateral view of adult male *Omobranchus elongatus* from Sentosa, in life. (Photograph by: Tan Heok Hui).

Remarks: The occurrence of the elongate oyster blenny in Singapore was recorded by Lim & Ng (2017). The present note shows that this species of fish not only takes refuge in empty oyster shells, but also spawns inside them. Two of its congeners, *Omobranchus fasciolatoceps* and *Omobranchus punctatus*, have also been recorded to nest in oyster shells (Kawaguchi et al., 1999). From the eggs being at different stages of development, the featured nest seems to contain multiple batches of eggs, probably four or five. The well-marked dorsal and anal fins, and long extensions of the caudal fin rays indicate that the blenny specimen is a male (see Springer & Gomon, 1975: 13, 30, figs. 13, 14), and that it was most likely guarding the nest. The multiple egg batches suggest that the attendant blenny could have spawned many times with one female, or separately with several different females.



Fig. 2. Two halves of the dead oyster shell with a layer of orange-coloured eggs plastered on the interior surfaces of each valve. Length of each valve is around 111 mm. (Photograph by: Tan Heok Hui).



Fig. 3. Close-up of egg mass in the oyster shell, showing the eggs in various developmental stages. (Photograph by: Tan Heok Hui).

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