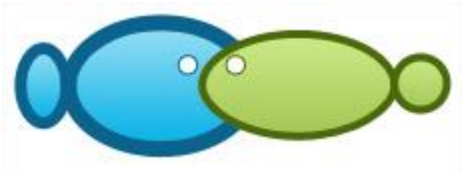

Short note: The fecundity and egg size of the freshwater crab (*Isolapotamon bauense* Ng, 1987) from Sarawak, Borneo

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Abstract. The Island of Borneo harbors a high species richness of freshwater brachyurans, many of which are endemic in the region and their existence is threatened by anthropogenic activities. Our knowledge on the fundamental aspects which are required for species conservation assessment is currently limited. For instance, information on fecundity of most Bornean freshwater crabs is almost non-existent despite this being an important predictor of vulnerability to extinction. This paper describes the fecundity and egg size of the giant freshwater crab (*Isolapotamon bauense* Ng, 1987) from Kuching Division in Sarawak, Borneo. The fecundity of the crab is between 26 and 81 eggs, with the egg diameter ranging between 3.7–4.2 mm. The macrolecithal eggs are attached to the pleopods of the female abdominal brood pouch; they are bright orange and are comprised of two layers of membrane, with a thicker outer layer and a thinner inner layer, encapsulating the large embryonic yolk sac.

Key Words: brachyuran crab, *Isolapotamon bauense*, reproductive biology, vulnerable species, endemic species.

Introduction. *Isolapotamon bauense* Ng, 1987 is the largest true freshwater crab in Malaysia and is endemic to the Kuching-Serian region in Sarawak. In addition to the extreme endemism, population density of the species is so low that it has acquired the "Vulnerable" species status in the IUCN Red List of Threatened Species (Esser & Cumberlidge 2008). Currently, not much government and non-government efforts has been done to conserve the species, particularly due to limited information to justify funding application.

Fecundity is often defined as the physiological reproductive potential of an individual (Bradshaw & McMahon 2008), that serves as a key determinant to ascertain the efficiency of population replacement, especially for decapod crustaceans (Cobo & Okamori 2008). The brachyuran crabs represent more than 7,000 valid species from 98 families, which have colonized a wide range of aquatic systems, some taxa have even successfully populated terrestrial habitats (Ahyong et al 2011; Ng et al 2008). Fecundity provides valuable insights into the evolutionary and reproductive strategies of a species (Carlos et al 2005). The recording of egg-bearing females is a useful index for determining the reproductive cycle of a species (Knudson 1960; Valter & Claudia 2008; Muzaffer & Ibrahim 2000). For decapod crustaceans, fecundity can be defined as the number of eggs produced by a female (Hartnoll 2015).

Freshwater crabs are the most species-rich of all decapod crustacean groups and show high levels of endemism (Esser & Cumberlidge 2008; Ng et al 2008). The taxonomy and systematics of freshwater crabs has gained significant interest due to