

Sabah grouper in Singapore

Subjects: Sabah grouper, *Epinephelus lanceolatus* x *Epinephelus fuscoguttatus* (Teleostei: Serranidae).

Subjects identified by: Contributor & Ivan Kwan.

Location, date and time: Cabrera et al. (2015).

Habitat: Cabrera et al. (2015).

Observer: Cabrera et al. (2015).

Observation: Cabrera et al. (2015).

Remarks: The *Epinephelus* groupers sighted off Tuas (Cabrera et al., 2015) have been identified as an artificial hybrid between a male giant grouper (*Epinephelus lanceolatus*) and a female tiger or brown-marbled grouper (*Epinephelus fuscoguttatus*). This hybrid, referred to as ‘Sabah grouper’, was first developed by researchers at the Universiti Sabah Malaysia in 1996 (Langenheim, 2014; Peace, 2014) and artificially reproduced through in-vitro fertilization. Both parent species occur in the Indo-Pacific Asia (Allen, 1999; Craig et al., 2011) and are present in Singapore waters. They are also commonly imported and reared as food fish in Singapore (personal observation).

The Sabah grouper has recently been seen on sale as food fish in Singapore. It is sold freshly dead in markets (Fig. 1) and live in restaurants (Fig. 2). It is most likely reared in floating fish farms in Singapore waters. The Sabah grouper noted by Cabrera et al. (2015) could have escaped from damaged floating rearing pens, or may even have been deliberately released. It appears that they are capable of surviving in the wild, but it is not known if they are fertile, or capable of reproducing naturally. The impacts of feral hybrid groupers on the native environment and organisms have not been studied or monitored.

Note: The contributor would like to thank Ivan Kwan for recognising the groupers featured in Cabrera et al. (2015) as hybrid fish.

References:

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- Langenheim, J., 2014. Why we should be worried about “Frankenfish” in south-east Asia. <http://www.theguardian.com/environment/blog/2014/jun/20/why-worried-frankenfish-south-east-asia>. [accessed on 22 November 2015]
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Fig. 1. Frozen Sabah grouper of about 40 cm total length (3 kg) photographed at a wet market in Singapore on 22 November 2015. Photograph by Tan Heok Hui



Fig. 2. Live Sabah groupers [first, second and fourth fish from the front] and tiger or brown-marbled groupers (*Epinephelus fuscoguttatus*) [third and fifth fish from the front] in a tank at a seafood restaurant in Singapore on 18 February 2015. The fish were at least 30 cm in total length. Photograph by Kelvin K. P. Lim