

## Brown drombus goby found in burrows with snapping shrimps

**Subjects:** Brown drombus goby, *Drombus triangularis* (Teleostei: Gobiidae);  
Snapping shrimp, *Alpheus chiragicus* (Crustacea: Decapoda: Alpheidae);  
Snapping shrimp, *Alpheus dispar* (Crustacea: Decapoda: Alpheidae).

**Subjects identified by:** Contributors.

**Location, date and time:** Singapore Island -

a) Changi beach, near car park 1; 7 July 2016; around 0600 hrs.

b) Tuas shore near Merawang; 29 April 2017; around 0730 hrs.

**Habitat:** Estuarine/marine. Intertidal seashores of mud-silt substrates with sand and gravel bits. Exposed during low tides.

**Observers:** Tan Heok Hui (Changi), Zeehan Jaafar (Tuas).

### Observations:

a) At Changi, a brown drombus goby of 30 mm standard length (tip of snout to base of caudal fin) was found in a burrow with a pair of *Alpheus dispar* snapping shrimps (Fig. 1). The fish is about half the size of the shrimps.

b) At Tuas, a brown drombus goby of 40.2 mm standard length was obtained from a burrow along with a pair of *Alpheus chiragicus* snapping shrimps (Fig. 2). The fish is about twice the size of the shrimps.

**Remarks:** Symbiotic relationships between snapping shrimps and gobies are well documented. In Singapore waters, members of the goby genera *Amblyeleotris*, *Cryptocentrus* and *Myersina* are known to share burrows with snapping shrimps and acting as their sentinels. *Drombus triangularis* is common on shallow muddy or sandy reef flats and estuaries, among seagrass and mangroves, and is not known to live with snapping shrimps (Larson & Lim, 2005).

This appears to be the first time that *Drombus triangularis* is recorded in burrows excavated and occupied by alpheid shrimps. However, it is yet to be demonstrated if the goby is opportunistically seeking shelter in the burrows when disturbed, or if it does have a symbiotic relationship with the shrimps by being an actual occupant of the burrow and acting as a look-out for the shrimps.

The snapping shrimps were identified with reference to Anker & de Grave (2016).

### References:

- Anker, A. & S. de Grave, 2016. An updated and annotated checklist of marine and brackish caridean shrimps of Singapore (Crustacea, Decapoda). *The Raffles Bulletin of Zoology*. Supplement No. 34: 343-454.
- Larson, H. K. & K. K. P. Lim, 2005. *A Guide to Gobies of Singapore*. Singapore Science Centre. 164 pp.

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Fig. 1. Lateral views of *Drombus triangularis* (topmost, about 30 mm standard length) and pair of *Alpheus dispar* (female above male, carapace length about 20 mm) from Changi.



Fig. 2. Lateral views of *Drombus triangularis* (topmost, 40.2 mm standard length) and pair of *Alpheus chiragicus* (male above female, carapace length about 15 mm) from Tuas.

Photographs by Tan Heok Hui