

Aquatic organisms observed in Kallang River off Jalan Rajah

Tan Heok Hui & Stanley Tay

heokhui@nus.edu.sg (Tan)

Subjects: Banded leporinus, *Leporinus fasciatus* (Teleostei: Characiformes: Anostomidae), Fig. 2;
Estuarine catfish, *Mystus gulio* (Teleostei: Siluriformes: Bagridae), Fig. 3;
Sailfin suckercatfish, *Pterygoplichthys pardalis* (Teleostei: Siluriformes: Loricariidae), Fig. 4;
African sharp-tooth catfish, *Clarias gariepinus* (Teleostei: Siluriformes: Clariidae), Fig. 5;
Mosquito fish, *Gambusia affinis* (Teleostei: Cyprinodontiformes: Poeciliidae);
Red devil, *Amphilophus citrinellus* (Teleostei: Cichliformes: Cichlidae), Fig. 6;
Peacock bass, *Cichla orinocensis* (Teleostei: Cichliformes: Cichlidae), Fig. 7;
Green chromide, *Etroplus suratensis* (Teleostei: Cichliformes: Cichlidae), Fig. 8;
Surinam eartheater, *Geophagus altifrons* (Teleostei: Cichliformes: Cichlidae), Fig. 9;
Mozambique tilapia, *Oreochromis mossambicus* (Teleostei: Cichliformes: Cichlidae), Fig. 10;
Nile tilapia, *Oreochromis niloticus* (Teleostei: Cichliformes: Cichlidae), Fig. 11;
Redhead cichlid, *Veija melanura* (Teleostei: Cichliformes: Cichlidae), Fig. 12;
Giant snakehead, *Channa micropeltes* (Teleostei: Anabantiformes: Channidae), Fig. 13;
Common snakehead, *Channa striata* (Teleostei: Anabantiformes: Channidae), Fig. 14;
Red eared slider, *Trachemy scripta elegans* (Reptilia: Testudines: Emydidae), Fig. 15;
Apple snail, *Pomacea maculata* egg mass (Mollusca: Gastropoda: Ampullariidae), Fig. 16.

Subjects identified by: Tan Heok Hui.

Location, date and time: Singapore Island, Kallang River between Jalan Rajah and Pan Island Expressway, from opposite SAFRA (Singapore Armed Forces Reservist Association) Toa Payoh (Fig. 1) to 800 m westwards; 6 September 2019 before 1000 hrs and 10 September 2019 from 1120 to 1220 hrs.



Fig. 1. View of a section of the Kallang River off Jalan Rajah. Photograph by Tan Heok Hui

Habitat: Freshwater. Urban canal with concrete banks, about 30 m wide, with dense growths of the non-native aquatic macrophyte, *Mayaca fluviatilis* (Mayacaceae).

Observers: Stanley Tay on 6 September, and Tan Heok Hui on 10 September.

Observations: Recent dry weather conditions have led to the water in the canal becoming relatively clear. This made it conducive for the observers to obtain images of fishes and other aquatic organisms in the canal from the banks with cameras equipped with telephoto lens. On 6 September 2019, Stanley Tay recorded on video, an example of *Leporinus fasciatus* in the canal. On 10 September 2019, H. H. Tan walked a stretch of over 800 m along the side of the canal adjacent to housing estates. Fishes could be observed in the middle of the canal, near the bottom and amongst aquatic macrophyte. There were also a few floating fish carcasses comprising three examples of *Clarias gariepinus* and two examples of *Pterygoplichthys pardalis*. 13 other species of fish, one species of turtle and one species of aquatic snail were recorded.

Remarks: The Kallang River is a part of the Marina Catchment, linked to the Marina Reservoir in the south. Of the 16 aquatic organisms observed, only two species - *Mystus gulio* and *Channa striata*, are known to be native to Singapore. All the other taxa recorded are non-native and have been recorded elsewhere (Ng & Tan, 2010; Yeo & Chia, 2010). Note that the common apple snail *Pomacea maculata* (egg mass shown in Fig. 16) was previously known as *Pomacea canaliculata* (see Tan et al., 2012). It appears that the fish *Leporinus fasciatus* (Fig. 2) is recorded in the wild for the first time in Singapore. However, its presence in the canal is not surprising for this native of South America is a common ornamental fish that tends to outgrow most home aquariums and thus likely to be abandoned when it reaches adult size (H. H. Tan, personal observation).

References:

- Ng H. H. & H. H. Tan, 2010. An annotated checklist of the non-native freshwater fish species in the reservoirs of Singapore. *COSMOS*. 6 (1): 95-116.
- Tan S. K., S. Y. Chan & G. R. Clements, 2012. *A Guide to Snails and other Non-marine Molluscs of Singapore*. Singapore Science Centre. 176 pp.
- Tan S. K. & H. P. M. Woo, 2010. *A Preliminary Checklist of the Molluscs of Singapore*. Raffles Museum of Biodiversity Research, National University of Singapore. 78 pp.



Fig. 2. Top view of *Leporinus fasciatus*, ca. 25 cm.
Screen grab from video by Stanley Tay



Fig. 3. Top view of *Mystus gulio*, ca. 18-20 cm.
Photograph by Tan Heok Hui



Fig. 4. Lateral view of *Pterygoplichthys pardalis*, ca. 25 cm. Photograph by Tan Heok Hui



Fig. 5. *Clarias gariepinus*, ca. 35 cm.



Fig. 6. *Amphilophus citrinellus*, ca. 20 cm.



Fig. 7. *Cichla orinocensis* juveniles, ca. 8-10 cm.



Fig. 8. *Etroplus suratensis*, ca. 20 cm.



Fig. 9. *Geophagus altifrons*, ca. 20 cm.

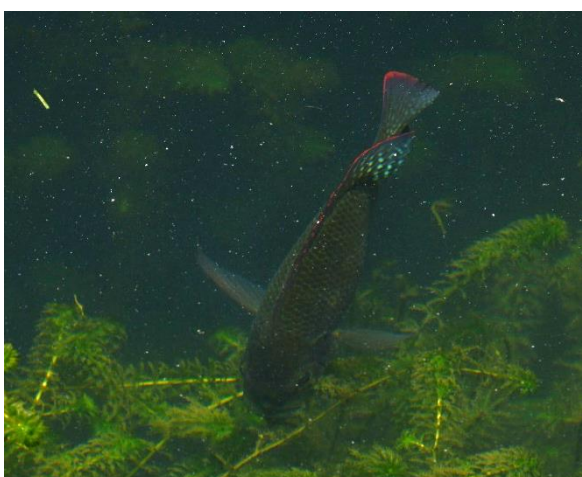


Fig. 10. *Oreochromis mossambicus*, ca. 20 cm

Photographs by Tan Heok Hui



Fig. 11. *Oreochromis niloticus*, ca. 25 cm.



Fig. 12. *Veija melanura*, ca. 24 cm.



Fig. 13. *Channa micropeltes*, ca. 50 cm.
(only the posterior half is visible)



Fig. 14. *Channa striata*, ca. 35 cm.



Fig. 15. *Trachemys scripta elegans*, ca. 20cm.



Fig. 16. *Pomacea maculata* egg mass.

Photographs by Tan Heok Hui