

Colour forms of the midas cichlid

Subjects: Midas Cichlid, *Amphilophus citrinellus* (Teleostei: Cichlidae).

Subjects identified by: Contributor.

Location, date and time: Singapore Island - Pangsua Pond, Marina Bay South Gardens, Pandan Canal, Sungei Buloh Wetland Reserve; 2007 to 2013; various times.

Habitat: Various artificial bodies of freshwater, including largely concretised impounding ponds and reservoirs in urban areas (Pangsua Pond, Gardens by the Bay), dammed estuarine waterway with concretised banks (Pandan Canal), and mud ponds (Sungei Buloh Wetland Reserve).

Observer: Contributor.

Observation: Various colour forms of *Amphilophus citrinellus* had been collected and preserved at the Zoological Reference Collection of the Lee Kong Chian Natural History Museum at the National University of Singapore. They range from the uniform orange, red and yellow forms, the variegated (with irregular patches of black or other colours) forms and the barred forms. These fishes are represented on Fig. 1 by 15 individuals between 6.5 and 16.5 cm standard length (from tip of snout to caudal base).

Remarks: *Amphilophus citrinellus* is a highly variable species, and the barred form was initially confused with the Mayan cichlid *Cichlasoma urophthalmum*. When placed side-by-side (Fig. 2) however, they appear very distinct from each other. *Amphilophus citrinellus* has a more pointed snout, less distinct black bars on its body, comparatively small ocellus on upper part of its caudal peduncle, and a well-demarcated black blotch at the middle of the fourth bar on the body.

Both the Midas and Mayan cichlids are native to Central America. They were introduced to the wild in Singapore since around the year 2000, and have since populated many inland and estuarine water bodies on Singapore Island. The Midas cichlid has also been recorded from other urban ponds and waterways, such as Pandan Reservoir, Yishun Pond and Jurong Lake (Kwik et al., 2013; Lim, 2013; Ng & Tan, 2010).

References:

- Kwik, J. T. B., Z. Y. Kho, B. S. Quek, H. H. Tan & D. C. J. Yeo, 2013. Urban stormwater ponds in Singapore: potential pathways for spread of alien freshwater fishes. *BioInvasions Records*. 2 (3): 239-245.
- Lim, K. K. P., 2013. Midas cichlids at Yishun Pond. *Singapore Biodiversity Records*. 2013: 110.
- 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.

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Fig. 1. Lateral views of *Amphilophus citrinellus* in various colour forms (6.5-16.5 cm standard length).



Fig. 2. Lateral views of *Amphilophus citrinellus* of 8.6 cm standard length (left), *Cichlasoma urophthalmum* of 9.8 cm standard length (right).

Photographs by Tan Heok Hui