

A xanthic giant African land snail at Bukit Gombak

Subject: Giant African land snail, *Achatina fulica* (Mollusca: Achatinidae).

Subject identified by: Contributors.

Location, date and time: Singapore Island, Bukit Gombak; 17 April 2014; 2140 hrs.

Habitat: Secondary forest and abandoned village gardens, near a private housing estate.

Observer: Tan Heok Hui.

Observation: An example of 60.6 mm shell height and with yellowish-white body was observed crawling on the ground next to a patch of secondary forest (Fig. 1).

Remarks: As the snail was of an unusual colour, it was collected and deposited in the Zoological Reference Collection of the Lee Kong Chian Natural History Museum at the National University of Singapore, under the catalogue number ZRC.MOL.5722. Even though this individual has a yellowish-white body, it is not a true albino. An albino animal would be totally devoid of pigmentation. Even the shell will also lack the brown and black markings. As normal colouration is retained on the shell, the individual herein featured is regarded as xanthic. For comparison purposes, a normally pigmented *Achatina fulica* from Singapore is shown on Fig. 2.

Albinistic or xanthic individuals appear to be rare in nature. Through selective breeding, snowy white-fleshed giant African land snails have been farmed in Taiwan (R.O.C.), where they are known as ‘white jade snail’ (白玉蝸牛), since the early 2000s on a commercial scale for human consumption (Hsieh et al., 2006; Chiu et al., 2012; Tan et al., 2012). Farming of this variety of snail has apparently been subsequently introduced to China (P.R.C.), and frozen and canned white jade snail meat appears to be easily available in Taiwan and China (for an overview, please refer to: <http://baike.baidu.com/view/510259.htm>). The snail meat is also commonly sold in night markets in the southern part of Taiwan, but most consumers seem unaware that they were consuming giant African land snails (Shih H.-T., personal communication). Curiously, despite the economic value and the fact that white jade snail farming and consumption is widespread in Taiwan and China, there is very little published information in English.

Based on information in online pet forums and websites, the albinistic white jade variety of the giant African land snail is widely available in the pet trade; possibly originating from the same farms. In Singapore, these white jade snails have made a brief appearance in the local pet trade in the mid-2000s, but have not been seen since (Tan Siong Kiat, personal observation). However, the individual found at Bukit Gombak (Fig. 1) is more likely to be a melanin deficient natural mutant rather than a released pet, as snails in the pet trade are usually albinistic rather than xanthic.

References:

- Chiu, Y.-W., D.-J. Huang, B.-S. Shieh & S.-H. Liang, 2012. A new invasive alien species *Achatina panthera* (Férussac, 1821) in Taiwan (Gastropoda: Achatinidae). *Journal of the National Taiwan Museum*. 65 (3): 57–65.
- Hsieh, B.-C., C.-C. Hwang & S.-H. Wu, 2006. *Landsnails of Taiwan*. 2nd edition. Forestry Bureau Council of Agriculture Executive Yuan, Taipei. 277 pp.
- 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.

Internet resource: <http://baike.baidu.com/view/510259.htm> (accessed on 22 April 2014).

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Fig. 1. Xanthic giant African land snail (ZRC.MOL.5722) of 60.6 mm shell height from Bukit Gombak. Photograph by Tan Heok Hui



Fig. 2. A giant African land snail with normal pigmentation from Singapore, shown here for comparison. Photograph by Kelvin K. P. Lim