

# The South China Cascade Frog, *Amolops ricketti*, found in Hong Kong

by Michael Lau

On the night of 21 October 2004, an adult female of *Amolops ricketti* was found resting next to a small cascade in a stream draining from Tei Tong Tsai to Tung Chung at about 270 m. Visits to the same stream on 25 October and 25 November 2004 found 1 and 2 more specimens next to another cascade. This species is rather similar to the Hong Kong Cascade Frog *Amolops hongkongensis* in colour pattern but the dorsal dark blotches are usually less distinct. It can best be distinguished by the smaller suction discs on the 3<sup>rd</sup> and 4<sup>th</sup> fingers. Their diameter is less than 3 times the width of the fingers whereas in *A. hongkongensis* the diameter of the suction discs is 3-4 times the width of the fingers. In addition *A. ricketti* lacks the tarsal fold which is present in *A. hongkongensis*. The first fingers of breeding male *A. ricketti* have white, granular nuptial pads. *Amolops hongkongensis* also has white nuptial pads on the first fingers but they are velvety. The eggs of *A. ricketti* are reported to be glued under stones in stream (Ye *et al.*, 1993) whereas the eggs of *A. hongkongensis* are laid on rock faces in the splash zones of cascades. Another apparent difference between the two species in Hong Kong is that *A. hongkongensis* is only found in the New Territories and Hong Kong Island, whereas *A. ricketti* only occurs on Lantau Island.

*Amolops ricketti* is widely distributed in South China, including Sichuan, Guizhou, Hubei, Zhejiang, Jiangxi, Hunan, Fujian, Guangdong and Guangxi (Zhao & Adler, 1993; Fei, 1999). This species has also been recorded in Wutongshan, Shenzhen just across the border (Kadoorie Farm and Botanic Garden, 2002). It has never been recorded in the pet or food trades (Lau *et al.* 1995; Kadoorie Farm and Botanic Garden, 2004) and it is unlikely that the frogs originate from human introduction. Hence the case that this frog is native to Hong Kong is deemed strong.

The amphibian fauna has been rather well-studied (Romer, 1979; Karsen *et al.*, 1998; Lau & Dudgeon, 1999) so it is intriguing as to why this species has not been found earlier. One of the reasons is that the stream supporting this species was not covered in previous surveys (e.g. Lau & Dudgeon, 1999 and the Hong Kong Biodiversity Survey). In addition, this species probably has a very restricted local distribution. Jiang & Xie (2003) reported several unidentified *Amolops* from a stream near Shek Pik Reservoir, Lantau. Based on the picture and the brief description in Jiang & Xie (2003), the frogs are likely to be *A. ricketti* and probably constitute another locality record. Because of its close resemblance to *A. hongkongensis*, this species may have been confused with the latter. Readers interested in finding out should examine the *Amolops* they come across, especially those in the New Territories, and look for the distinguishing features mentioned above.



Fig. 1. *Amolops ricketti*

## Bibliography

- Fei, L. (1999). *Atlas of Amphibians of China*. Henan Publishing House of Science & Technology, Zhengzhou. (in Chinese).
- Jiang, J. & Xie, F. (2003). Biodiversity of amphibians and reptiles in Lantau Island with comments on their environment. In *The 3<sup>rd</sup> Conference on the Present Status and Conservation of Wild Animals and Plants in Hong Kong – New Information and Ecological Conservation Concerns for the Lantau Island*. Pp. 21-37. Wildlife Conservation Foundation (ed.). Wildlife Conservation Foundation, Hong Kong.
- Kadoorie Farm and Botanic Garden. (2002). *Report of a Rapid Biodiversity Assessment at Wutongshan National Forest Park, Shenzhen Special Economic Zone, China, 16 to 17 May 2001*. South China Biodiversity Survey Report Series: No. 11. KFBG, Hong Kong SAR.
- Kadoorie Farm and Botanic Garden. (2004). *Wild Animal Trade Monitoring at Selected Markets in Guangzhou and Shenzhen, South China, 2000-2003*. Kadoorie Farm & Botanic Garden Technical Report No. 2. KFBG, Hong Kong SAR.
- Karsen, S.J., Lau, M.W.N. & Bogadek, A. (1998). *Hong Kong Amphibians and Reptiles – 2<sup>nd</sup> Edition*. Provisional Urban Council, Hong Kong.
- Lau, M.W.N., Ades, G., Goodyer, N. & Zou, F.S. (1995). *Wildlife Trade in Southern China including Hong Kong and Macao*. Report to Biodiversity Working Group of China Council for International Cooperation on Environment and Development Projects.
- Lau, M.W.N. & Dudgeon, D. (1999). Composition and distribution of Hong Kong amphibians. *Memoirs of the Hong Kong Natural History Society* 22: 1-79.
- Romer, J.D. (1979). Annotated checklist with keys to the adult amphibians of Hong Kong. *Memoirs of the Hong Kong Natural History Society* 15: 1-14.
- Ye, C., Fei, L. & Hu, S. (1993). *Rare and Economic Amphibians of China*. Sichuan Publishing House of Science & Technology, Chengdu. (in Chinese).
- Zhao, E.M. & Adler, K. (1993). *Herpetology of China*. Society for the Study of Amphibians and Reptiles, Oxford (Ohio).