TWO RECENT RECORDS OF THE TOAD, PELOPHRYNE BREVIPES (PETERS, 1867) (ANURA: BUFONIDAE) FROM SINGAPORE

Kelvin K. P. Lim

ABSTRACT. - The small bufonid, *Pelophryne brevipes* was last reported from Singapore in 1900. Two recent specimens from Bukit Timah Hill confirm its continued presence in Singapore.

Pelophryne brevipes (Peters, 1867) is a small species of toad distributed in Peninsular Malaysia, Natuna islands, Sumatra, Mentawei Islands, Borneo, and Mindanao (Inger,1966: 86-87). This species has been referred to as Nectophryne guentheri Boulenger, 1882 by Flower (1896: 910), Butler (1904: 394), Boulenger (1912: 268), Bourret (1914: 158-159), van Kampen (1923: 68-69), and as Pelophryne signata (Boulenger, 1894) by Hendrickson (1966: 73-74, pl. 9).

On 21 November 1989, a small anuran (snout-vent length 15 mm) referrable to *Pelophryne brevipes* was obtained from the Bukit Timah Nature Reserve, Singapore, by D. H. Murphy from a tree trunk about one-and-a-half metres from the ground in Fern Valley. The specimen had the typical colouration of the species, i.e. a grayish-brown dark-edged cruciform marking on the back; brick-red tubercles on the dorsum and the sides; the sides of the body is dark brown and the posterior part of the upper labial region bright yellow; throat yellow marbled with dark gray; venter white with blackish spots; the limbs with brown crossbars. The general morphology matches the descriptions in Berry (1975: 55-56) with significant features being the dilation of the finger and toe tips into broad, squarish disks, and absence of paratoid glands. This specimen has been deposited in the Zoological Reference Collection, Department of Zoology, National University of Singapore (ZRC.1.1760).

On 16 December 1989, a second specimen was obtained from the base of a tree, again at Fern Valley by a film crew from the Singapore Broadcasting Corporation. This 16 mm individual was brought to the author for identification, and then returned to where it was found two days later (Ng Kwee Hoon, pers. comm.).

The present specimens of *P. brevipes* represent the first records of this obscure amphibian in Singapore since 1900. Inger (1966: 85) examined four specimens from Singapore in the British Museum (Natural History), which could have been specimens obtained by Ridley and Flower. Flower (1896: 910) collected two specimens "...in the

Kelvin K.P.Lim – Zoological Reference Collection, Department of Zoology, National University of Singapore, Kent Ridge, Singapore 0511, Republic of Singapore

jungle on Bukit Timah..." in January 1896. Butler (1904: 394) noted that Ridley and Flower each obtained two specimens from Bukit Timah, and Butler himself and Ridley in June 1900 found one "...crawling on a rock in a ravine in jungle." This specimen was reportedly deposited in the Selangor Museum. Boulenger (1912: 268) said that Ridley and Flower secured several specimens at Bukit Timah. It is not certain exactly how many specimens might have been obtained in Singapore prior to the two specimens reported herewith. Hanitsch (1912: 18) listed this species (as *Nectophryne guentheri*) as being present in the collection of the Raffles Museum (presently the ZRC) from Bukit Timah, but did not state the number of specimens. To date, these specimens cannot be located.

The ecology of the two recent Singapore examples agree with Berry (1975: 56) in being an inhabitant of primary rainforest. Apart from being a known ground-dweller, Inger (1966: 87) also found this species on vegetation "... 0.6 - 1.5 m" (not "...1.5 mm..." as printed in Berry 1975: 56) above ground. *Pelophryne brevipes* has not been collected or observed outside of Bukit Timah, and seems likely to be confined to this remnant patch of primary rainforest of the Bukit Timah Nature Reserve. Its survival in Singapore therefore could be threatened as the Bukit Timah forest appears to be deteriorating (Wee & Corlett, 1986: 30-33).

Acknowledgements. - The author is grateful to Assoc. Prof. D. H. Murphy of the Department of Zoology, National University of Singapore, and Ms. Ng Kwee Hoon of the Singapore Broadcasting Corporation for bringing the two specimens of *Pelophryne brevipes* to his attention. Dr. Peter K. L. Ng kindly proof-read the manuscript.

LITERATURE CITED

- Berry, P. Y., 1975. The Amphibian Fauna of Peninsular Malaysia. Tropical Press, Kuala Lumpur, x + 130 pp., 91 figs.
- Boulenger, G. A., 1912. A Vertebrate Fauna of the Malay Peninsula from the Isthmus of Kra to Singapore including the adjacent islands. Reptilia and Batrachia. Taylor and Francis, London. xiii + 294 pp., 79 figs.
- Bourret, R., 1941. Les batraciens de l'Indochine, Mem. Inst. Oceanogr. Indochine, 6, x + 517 pp., 4 Pl., 196 figs.
- Butler, A. L., 1904. A list of the batrachians known to inhabit the Malay Peninsula, with some remarks on their habits, distribution and &c. J. Bombay Nat. Hist. Soc., 15:193-205,387-402.
- Flower, S. S., 1896. Notes on a collection of reptiles and batrachians made in the Malay Peninsula in 1895-96; with a list of the species recorded from that region. *Proc. Zool. Soc. Lond.*, 56:856-914, Pls. 44-46.
- Hanitsch, R., 1912. A list of the birds, reptiles and amphibians in the Raffles Museum, Singapore. Straits Settlements Government Printing House, Singapore, 19 pp.
- Hendrickson, J. R., 1966. Observations on the fauna of Pulau Tioman and Pulau Tulai. The amphibians. *Bull. Natn. Mus. Singapore*, 34:72-84, pls 9,10,13.
- Inger, R. F., 1966. The systematics and zoogeography of the amphibia of Borneo. Fieldiana (Zool.), 52:1-402, 71 figs.
- Kampen, P. N. van, 1923. The Amphibia of the Indo-Australian Archipelago. E. J. Brill, Leiden, x + 304 pp., 29 figs.
- Wee, Y. C. & R. Corlett, 1986. The City and the Forest Plant Life in Urban Singapore. Singapore University Press, 186 pp.