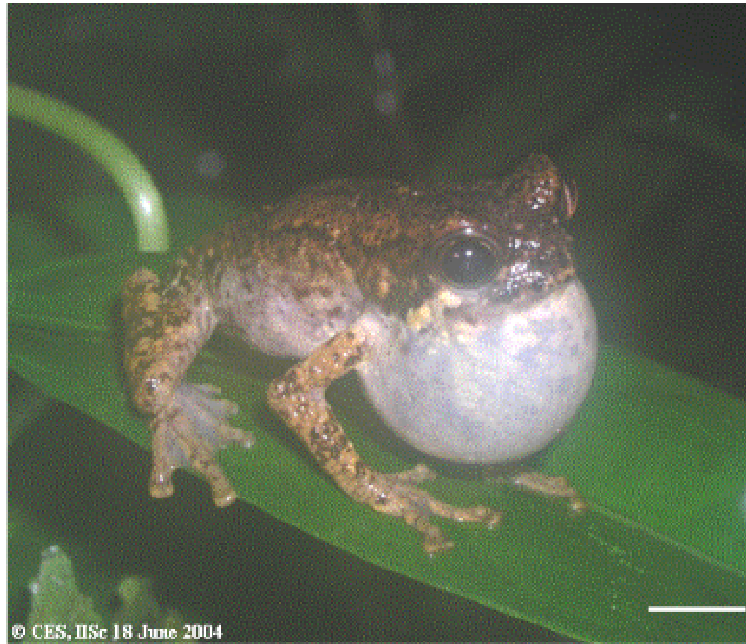


## *Pedostibes tuberculosus* (Malabar Tree Toad) Advertisement Calls and Distribution

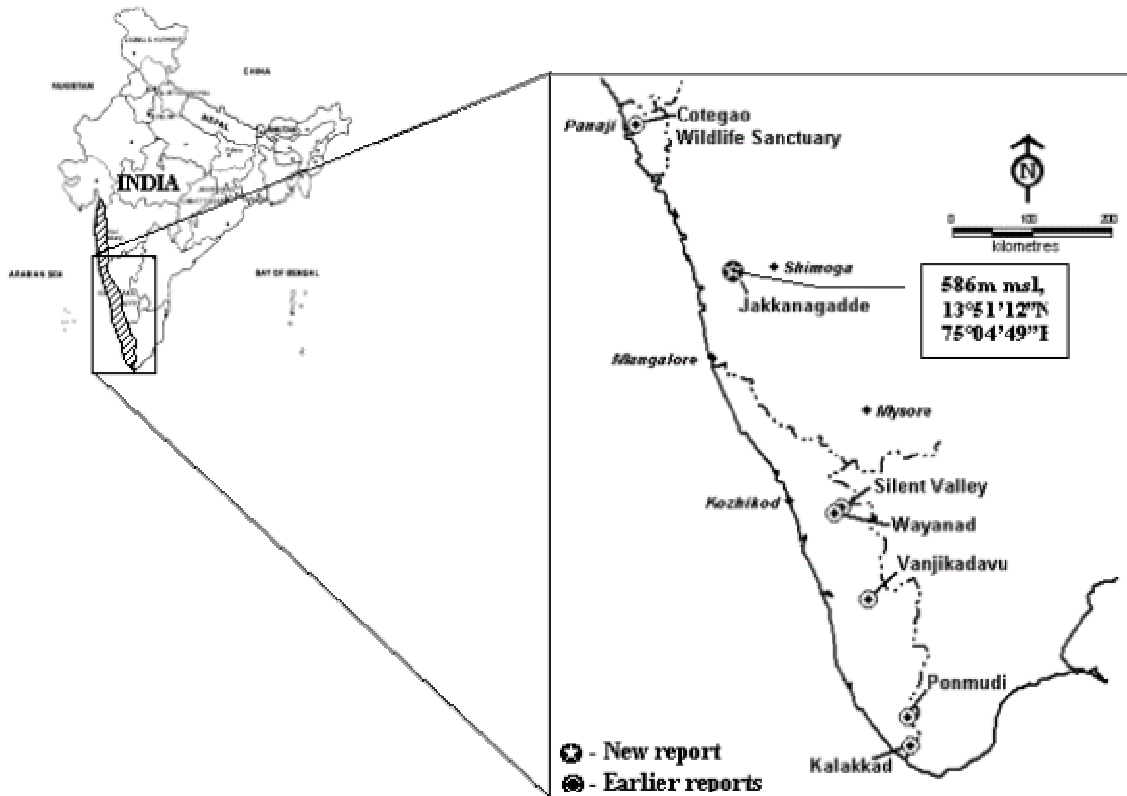
Herpetological Review, 37(1): 75-76

Advertisement call patterns of anurans provide insights to speciation, territoriality, evolution and phylogeny as these patterns reveal the species identification and motivation to mate ( [Bridges and Dorcas 2000](#), *Copeia*. 2000:587-592; [Emerson 2001](#), *In Ryan (ed.), Anuran Communication*. pp. 36-43. Smithsonian Institution Press, Washington, D.C.). Anuran acoustics have been studied for 20 species of 113 from Western Ghats ([Gururaja 2004](#), *Sahyadri Mandooka: Amphibians of Western Ghats*; [Kadadevaru and Kanamadi 2001](#), *Curr.Sci.* 80:1486-1487; [Kuramoto and Joshy 2001](#), *Curr.Herpetol.* 20:85-95). Herein we report on advertisement call, explosive breeding behaviour and distribution of *Pedostibes tuberculosus*, endemic to Western Ghats.

*Pedostibes tuberculosus* is a medium-sized tree toad (mean SVL  $\pm$  SE: 37.18  $\pm$  0.44 mm; Range: 36-38 mm; all male, N = 4, [Fig. 1](#)). Individuals have distinct sub-gular vocal sac. Calls of four individuals (ca. 1.3 m above ground) were recorded at 15-minute intervals using Olympus digital voice recorder W-10 as Differential Pulse Code Modulation at 15.5 kHz. Call were recorded less than 30 cm from the specimen amidst evergreen-semi-evergreen forest (RH 97%, 23.6°C) adjacent to a small perennial stream (marked in [Fig. 2](#))



**Fig . 1. *Pedostibes tuberculosus* (male, snout-vent length = 38 mm) at Jakkanagadde, Shimoga, Karnataka. Scale bar: 10 mm.**



**Fig . 2. Reported sightings of *P. tuberculosis* in Western Ghats**

Calls were single and chorus, and antiphonal, heard for a month with the onset of southwest monsoon (June 2004). Chorus calls were synchronous, starts with an individual's initiation. Single calls of *P. tuberculosis* were analysed as per [Littlejohn \(2001\)](#). In Michael J. Ryan (ed.), *Anuran Communication*. pp. 102-120. Smithsonian Institution Press, Washington, D.C.) Each call lasted for 3-7 seconds had 14-37 pulse groups (PG) of 3-11 pulses with the domination of 4-8 PG, of which PG 1-2 (N = 16) had larger period ( $145.63 \pm 21.72$  ms) and interval ( $117.69 \pm 22.09$  ms) in the entire call series. Pulse frequency was 12.87-44.67 ( $34.82 \pm 3.83$ ). PG period was 61-134 ms. Amplitudes of first and last pulses of first and last pulse groups were low compared to others. Dominant frequency was  $3782.13 \pm 30.58$  Hz. Pulse groups sounded like *Shchirrrrrr shirrrr shirrr shirrr shirrr* .....

Call structure of *P. tuberculosis* varies considerably from other bufonids in Western Ghats ([Kanamadi et al. 1995](#). *J. Adv.Zool* . 16:5-11.). Mean pulse rate of *B. melanostictus* was twice that of *P. tuberculosis*. However similarity was noticed between pulse rate of *B. fergusonii* and *P. tuberculosis*. The dominant frequency in *B. melanostictus* was 1450 Hz, in *B. fergusonii* it was 3175 Hz, and in *P. tuberculosis* 3782 Hz. Synchronous calls in case of *B. americanus*, *B. bombina*, *B. variagata*, *B. melanostictus* and *B. fergusonii* of Bufonidae are attributed to explosive breeding behaviour ([Duellman and Trueb 1986](#). *The Biology of Amphibians*. McGraw-Hill Book Inc., New York. U 670 pp; [Kanamadi et al. 1995, op. cit.](#)). The same can be implied to *P. tuberculosis* of Bufonidae, which has similar call pattern.

Even though its presence was predicted ( [Biju 200. Indian Soc. Con. Bio. 1:1-24; Das and Whitaker 1998. Herpetol. Rev. 29:173](#)), there are no earlier reports from Karnataka spanning over 400 km of Western Ghats (earlier reports are marked in [Figure 2](#)). The new location is approximately 333 km north of Silent Valley (nearest southern range) and 222 km south of Cotegao Wildlife Sanctuary (nearest northern range).

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