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OBSERVATIONS ON EGG-LAYING BY *CALOTES ELLIOTI* (GÜNTHER, 1864)

Calotes ellioti Günther, 1864 is a lizard endemic to the southern ranges of the Western Ghats of India, distributed in semi-evergreen and evergreen forests (Smith, 1943; Das, 2002). Existing information on its reproductive biology is limited: between 3–5 eggs, measuring 5 x 12 mm are laid in April (Das, 2002). This short communication presents observations of egg-laying in *C. ellioti*, made in a privately owned vanilla plantation in Candurra Division, Murugalli Estate, Anamalai Hills, Tamil Nadu, bordering Vazhachal Reserve forest in Kerala.

On 9 May 2006 at 1444 h, a female *Calotes ellioti* (SVL 61.6 mm; TL 172.5 mm) was observed digging a pit on barren soil. The pit (2 x 2 cm) was under a tree, 5 m from a path, at 845 m above msl, under contiguous canopy cover. The understorey has been cleared for planting *Erythrina indica*, which supports the vanilla plants. The lizard used both fore- and hind limbs to throw mud out of the pit, which was conical, gently curving downwards and was excavated till 1500 h. Between 1500 and 1504 h, four ovoid eggs, within an interval of ca. 1 min was produced. They were white in colour, leathery and oval, measured 13.3 x 7.75 mm; 12.7 x 7.77 mm; 13.25 x 8.00 mm and 12.45 x 7.15 mm.

The lizard arranged the eggs in the pit, licked them and settled them firmly in place by pounding them with the head. This continued till 1514 h. The lizard positioned its midbody at the centre and covered the pit primarily using the forelimbs to push the soil back into the pit. The soil was rather dry and the eggs were packed together closely, by pounding the mud with the snout. The forelimbs were also used for packing the mud. Once the pit was covered, mud in the area immediately around the nest was packed by scraping and collecting the soil from around the nest, with the jaw. The packing of the nest and the soil around the nest, into a firm neat surface continued till about 1556 h, or over half an hour. The process of egg laying and covering the pit took about 56 min. This included several minutes of rest several times during the process and once it stopped to feed on a passing insect. While I observed pit

digging for about 15 min, the exact time taken for digging the pit could not be determined.

Usage of the snout to pack the nest has been reported in *Calotes grandisquamis* by Vijaya (1984). This may be a common method used by agamids for nest packing. *C. calotes* were observed to nest during May–June in Anaikatty Hills (Rathinasabapathy and Gupta, 1997). *C. versicolor* has been observed nesting between April–May (Singh et al., 1984). In *C. ellioti*, nesting continues to the second week of May and some gravid individuals were observed till the end of May. Along with observations of other gravid females and juveniles, this observation also substantiates that the human modified, privately owned vanilla plantation in Anamalai hills support reproducing populations of *C. ellioti*.

These observations were made while working on a project documenting the diversity of reptiles in various plantation types in Anamalai hills, Western Ghats. I thank the management and staff of M/S Parry Agro Industries Limited, Murugalli Estate, for support and Venky Muthiah and Murugappa Trust for funding and other support provided.

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