



Notes on Eggs and Hatchlings of the Bengal Monitor (*Varanus bengalensis*)

Mehul Thakur

B-55, G.I.D.C. Colony, Pandesara, Surat, India 394221 (mehulnthakur@gmail.com)

Photographs by the author.

India is home to four species of varanid lizards, the most geographically widespread being the Bengal Monitor (*Varanus bengalensis*), which occurs from southeastern Iran through much of southern Asia and into the Malay Archipelago (Pianka 2004). As in many wide-ranging varanids, the ecology and natural history of the species varies considerably throughout its range in response to different habitats and geoclimatic zones (Losos and Greene 1988; Auffenberg 1994; Pianka 1995).

The peak breeding period of *Varanus bengalensis* is January to April, but eggs have been found from June through December in fallen logs and termite mounds in Sri Lanka (Deraniyagala 1953). Monitors generally deposit their eggs in holes in the ground or in ant-hills (Smith 1935). Bengal Monitors lay their eggs in burrows excavated by the female if ant-hills or termitaria are not available (Auffenberg 1983). Clutch size varies according to the age of the female, with older animals laying more eggs than younger ones (Akond et al. 1982). Clutch sizes of 8–32 have been documented (Whitaker and Hikida 1981; Akond et al. 1982). Khan (1987) reported clutches of 20–30 eggs in Bangladesh and

Daniel (2002) recorded clutches of 8–30 in India. Eggs are oval and relatively soft-shelled (Smith 1935). The incubation period varies in response to temperature, humidity, and rainfall (Ahsan and Saeed 2004), with Daniel (2002) indicating a length of 8–9 months. Young monitors are much more brightly colored than adults (de Jong 1944). Hatchling Bengal Monitors are brown with distinct yellow dorsal spots that become increasingly indistinct in adults (Karunaratna et al. 2008).

On 18 October 2013, Prayas Team Environment received a distress call for a monitor in the water tank of a housing society in the Adajan area of Surat (21.20309°N, 72.78355°E). Team member Bhavin Mistry found a female Bengal Monitor in the empty water tank with six eggs (Fig. 1). He swiftly bagged the lizard and collected the eggs. She subsequently laid two more eggs in the bag. The monitor was released near the rescue site. The eggs (5.82 ± 0.35 cm in length and 2.77 ± 0.05 cm in width; mean \pm one std. dev.) were placed in loose soil at ambient temperatures. Hatchlings began to emerge after 198 days on 4 May 2014 (Fig. 1). Small slits were made in the eggs to facilitate emergence. Hatchlings were characteristi-



Fig. 1. Female Bengal Monitor (*Varanus bengalensis*) with eggs in a water tank at the rescue site (left). Hatchling Bengal Monitor emerging from an egg (right).



Fig. 2. Hatchling Bengal Monitor (*Varanus bengalensis*) prior to release.

cally brown in color with yellow dorsal spots. All were active and almost immediately began exhibiting defensive behaviors (hissing and elevating the head) when disturbed. All had an attached yolk sac, which provided nourishment for the first 2–3 days. The average total length of the six hatchlings was

17.43 ± 0.56 cm. They were kept in captivity for four days and then released into suitable natural habitat (Fig. 2).

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