

Notes on Clutch Size, Incubation Period, and Hatchling Size of the Ornate Flying Snake (Chrysopelea ornata)

Rupankar Bhattacharjee¹, Ashwini Kumar², and Jayaditya Purkayastha¹

¹Help Earth, Raghunath Choudhury Path, Lachitnagar, Guwahati 781007, Assam, India (mail.jayaditya@gmail.com)

²Assam State Zoo cum Botanical Garden, R.G. Baruah road, Guwahati 781005, Assam, India

The Ornate Flying Snake, *Chrysopelea ornata* (Shaw 1802), is a widely distributed colubrid found across most of southern and southeastern Asia (IUCN Bangladesh 2015). It is an arboreal species that is active by day and feeds on lizards, small mammals, snakes, and insects (Smith 1943; Dutta 2015). The species is able to glide from higher to lower levels within the forest canopy (Socha 2011). This makes *C. ornata* a versatile hunter but harder to study. Therefore, very little is known about the breeding biology of this species. Smith (1943) reported observations of mating in *C. ornata* occurring in June in Bangkok, Thailand, with clutch sizes ranging between 6–12 eggs.

At about 1200 h on 30 April 2022, a gravid female *C. ornata* was rescued from the Azara area of Guwahati City, Assam, India (26.1212 N, 91.6161 E). The rescued individual was quarantined in the Assam State Zoo cum Botanical Garden. On 4 May 2022, it laid 10 eggs measuring 28–30 mm in length and 15–17 mm in diameter (Fig 1A). The eggs were elongated and oval in shape, and were bright white when laid, but later became dirty off-white. The eggs were incubated in a plastic box at ambient temperatures using vermiculite as a substrate, with two holes on the two sides of the box for cross-ventilation. The eggs were kept in the dark and humidity was maintained by periodic sprinkling of water.

Of the 10 eggs, five were discarded within 13 days because they appeared to have decayed. After an incubation period of 71 days, the remaining eggs began hatching at about 1840 h on 14 July 2022 (Fig. 1B), and within 12 hours all had hatched. Hatchlings, which were 270–290 mm in total length (Fig. 1C), were released into the Hangerabari Reserve Forest on 16 July 2022.

Acknowledgements

We are indebted to the Forest Department of Assam and the Assam State Zoo cum Botanical Garden for their support.

Literature Cited

Dutta, S.K. 2015. First locality record of *Chrysopelea ornata* Shaw, 1802 Golden Tree or Gliding Snake from Kanger Valley National Park, District—Bastar, Chhattisgarh. *Biolife* 3: 851–853. https://doi.org/10.17812/blj.2015.3415.

IUCN Bangladesh. 2015. *Red List of Bangladesh Volume 4: Reptiles and Amphibians*. IUCN Bangladesh Country Office, Dhaka, Bangladesh.

Smith, M.A. 1943. The Fauna of British India, Ceylon and Burma, including the Whole of the Indo-Chinese Subregion (Reptilia and Amphibia, Vol. III, Serpentes). Taylor and Francis, London, UK.

Socha, J.J. 2011. Gliding flight in *Chrysopelea*: Turning a snake into a wing. *Integrative & Comparative Biology* 51: 969–982. https://doi.org/10.1093/icb/icr092.







Figure 1. A clutch of eggs of the Ornate Flying Snake (*Chrysopelea ornata*) (A); a hatchling *C. ornata* emerging from an egg (B); and five hatchlings of *C. ornata* (C). Photographs by Rupankar Bhattacharjee.