

Captive breeding of the Montane trinket snake (*Coelognathus helena monticollaris*) at Pilikula Biological Park, Mangalore, Karnataka, India.

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ABSTRACT - The Trinket snake *Coelognathus helena monticollaris* is a non venomous, semi-arboreal, constrictor, endemic to Western Ghats. Courtship and mating was observed in the month of July and eggs deposited after 61 and 68 days by two females respectively. The eggs hatched after 68 days with 100% hatching rate.

INTRODUCTION

The Montane trinket snake *Coelognathus helena monticollaris* (Fig.1) is native to South Central Asia. In India, it is endemic to the Western Ghats and found in Tamil Nadu, Kerala, Karnataka and Maharashtra states (Whitaker & Captain 2008). The Western Ghats region is cooler and with higher rainfall and humidity in comparison to the regions where the other subspecies of *C. helena* occur. Females (total length 120cm - 150cm) grow larger than males (90cm - 120cm) while males have a proportionately longer tail. During the hot weather this species lives deep in termite mounds, rock piles and crevices. In the cool season they emerge and are found in leafy trees, bushes and branches. They are found in the scrub zones of rain forest edges, rice fields, plantations and meadows and may frequently venture towards human habitation, occasionally enter human dwellings. *C. h. monticollaris* is a generalist feeder on a variety of prey (Daniel, 1983) and deposits between 8 to 12 eggs. In this paper we describe the first captive breeding of this little known subspecies at the Pilikula Biological Park, in India.

MATERIALS AND METHODS

Two pairs of adult *C. h. monticollaris* were housed together for one year in the same enclosure in Pilikula Biological Park. The snakes were wild caught in the Mangalore, Karnataka region and housed in a 2x2m enclosure maintained at an ambient temperature of 22-28°C and relative humidity from 80-90% (Fig. 2). The enclosure was provided with a heating source (a 60W incandescent lamp covered with a inverted clay pot) in a corner during winter and monsoon season and at cool spots throughout the year. The enclosure was enriched with plant growth, dead wood, a water pit, stones etc. Soil and leaf litter were used as a substrate which was regularly cleaned and maintained hygienically. The roof of the enclosure was covered with a mesh to provide natural light and also aeration. During the monsoon season the roof was covered with mangalore tiles to avoid rain-water entering the enclosure but at this time 25% of the roof of the enclosure was covered by transparent sheets to allow sunlight to penetrate.



Figure 1. Adult *C. h. monticollaris*.



Figure 2. Enclosure used to house *C. h. monticollaris* at Pilikula Biological Park.

RESULTS & DISCUSSION

Courtship behaviour was observed during July. After successful mating the two females deposited eggs after 61



Figure 3. *C. h. monticollaris* eggs began to hatch after 68 days.



Figure 4. Group of one day old *C. h. monticollaris* – see Fig. 1 for comparison of body pattern with an adult.

and 68 days on the soil substrate. Clutch size was 8 and 12 respectively with an overall average egg weight of 4.2g. The eggs were removed from the enclosure and incubated in a plastic box provided with soil as a substrate. The box was kept in a cool and well ventilated area at a temperature range of 25-28°C with a relative humidity of 80-90%. Hatching began after 68 days (Fig. 3) with 100% hatching rate. The average weight of the hatchlings was 8.3gm and average total length 17.3 cm (Fig.4). During the present study courtship was observed only during July in both the breeding pairs. Normally, in natural conditions, *C. h. monticollaris* breed once a year, whereas *C. h. helena* normally produce more than one clutch annually with the first hatchlings appearing before June.

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