REPTILES & AMPHIBIANS

Merolepid Common Trinket Snake (*Coelognathus helena helena*)

Raju Vyas

1-Apartment, BPC-Haveli Road, Nr. Splatter Studio, Alakapuri, Vadodara–390007, Gujarat, India (razoovyas@hotmail.com)

Coelognathus helena, commonly known as the Indian Trinket Snake (Fig. 1), is widely distributed in India (Whitaker and Captain 2008), Bangladesh (IUCN Bangladesh 2015), Bhutan (Wangyal and Das 2021), Nepal (Schleich and Kästle 2002; Kästle et al. 2013), and Sri Lanka (De Silva 2009). Three subspecies are recognized: Common Trinket Snake, *C. h. helena* (Daudin 1803); Montane Trinket Snake, *C. h. monticollaris* (Schulz 1992), and Black-collared Trinket Snake, *C. h. nigriangularis* Mohapatra, Schulz, Helfenberger, Hofmann, and Dutta 2016). All are readily distinguished by differences in color and pattern (Mohapatra et al. 2016).

All three subspecies occur in Gujarat (Patel et al. 2021), where Vyas (2012) also recorded an albino (Fig. 2) in Anand District. While searching for a different morph of the species within the state, I found images of an unusual snake in the photo collection of Chirag Tank, a local rescuer from Porbander City, Gujarat. The snake had been rescued from Porbandar's industrial area on 16 September 2010 and released into nearby natural habitat following photographic documentation (Fig. 3).

Mr. Tank reported that the snake was about 80 cm long and it was identified as a juvenile Common Trinket Snake by examining various images. The head and dorsum lacked scales but ventral scales were typical, an abnormality known as merolepidosis (partially scaleless). The body was dark brown-black with transverse bands and black and white ocelli anteriorly that faded posteriorly into two light brown lateral stripes that extended onto the tail. The top of the head was marbled yellowish, with a black line below each eye, whereas the chin and throat were immaculate white.

In reptiles, dermal-epidermal interactions require the presence of beta-keratin to produce normal scales during skin morphogenesis (Dhouailly 1975; Alibardi 2004), but beta-keratin was absent in a scaleless Western Diamondback Rattlesnake (*Crotalus atrox*) with large areas utterly devoid of scales and the skin appearing delicate and wrinkled (Toni and Alibardi 2007). Such mutations could result from environmental pollution (Sutton and Harris 1972). For example, Gray et al. (2001) listed multiple irregularities (including merolepidosis) in Eastern Garter Snakes (*Thamnophis s. sirtalis*), which could have been triggered by environmental toxins at a superfund site in Pennsylvania, USA.

Merolepidosis was recorded for the first time in India in two Spectacled Cobras (*Naja naja*) from the industrial area of Solapur, Maharashtra, India (Sayyed and Shinde 2021). This report is the second record of a merolepid snake in India.

Fig. 1. A typically colored Common Indian Trinket Snake (*Coelognathus helena helena*) from Gujarat, India. Photograph by Raju Vyas.

Fig. 2. An albino Common Indian Trinket Snake (*Coelognathus helena helena*) from Anand, Gujarat, India. Photograph by Dhaval Patel.

Reptiles & Amphibians ISSN 2332-4961
https://doi.org/10.17161/randa.v30i1.18569

Fig. 3. A merolepid (partially scaleless) Common Indian Trinket Snake (*Coelognathus helena helena*) from Porbandar, Gujarat, India. Photographs by Chirag Tank.

Acknowledgments

I thank Chirag Tank (Porbandar, Gujarat) and Dhaval Patel (VNC, Vidhya Nagar, Anand, Gujarat) for sharing images and information about rescuing snakes.

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