



# Road Mortality of an Oriental Garden Lizard, *Calotes versicolor* (Daudin 1802)

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Essentially all terrestrial animals are vulnerable to road mortality or habitat fragmentation by roads (Rytwinski and Fahrig 2015; Hatti and Mubeen 2019) and road mortality is responsible for population declines in some reptilian species that live in close proximity to humans (Todd et al. 2010). The Oriental Garden Lizard (*Calotes versicolor*) is a widely distributed agamid that ranges from Oman across southern and southeastern Asia to Indo China, the Maldives, Réunion, Mauritius, and the Seychelles (Wei et al. 2018). These lizards are very adaptable and often occur in human-altered environments and areas of human habitation (Sudasinghe and Somaweera 2015). *Calotes versicolor* is found throughout India and is absent only from the trans-Himalayas (Uetz et al. 2019).

At 1732 h on 26 September 2019, we found a road-killed adult female *C. versicolor* (Fig. 1) (SVL ~10 cm, TL ~12 cm) with a clutch of six eggs on the gravel road that connects the villages of Thengumarhada and Kallampalayam in the Sathyamangalam Tiger Reserve, Tamil Nadu, India (11.54877°N, 76.96345°E). Although vehicular traffic is less

than that on state and national highways, this road is used extensively by local villagers and forest officials.

Reptilian females often travel long distances in search of appropriate sites to deposit eggs (Andrews et al. 2015). Sun exposure, low vegetation, areas of bare soil, and radiant heat from the road render edges of roads highly attractive nesting sites (Andrews et al. 2015; Steen et al. 2006), even for species like *C. versicolor* that do not usually move extensive distances on the ground. Reptiles also are attracted to the favorable microclimate on roads (i.e., for basking) and are vulnerable because they remain immobile when approached by a vehicle (Heigl et al. 2017). Bhupathy et al. (2011) stated that in southern India most reptiles are killed by vehicles during the dry season, when cooler temperatures apparently increase the attraction to roads. Although the death of a single gravid garden lizard is merely demonstrative of the potential harm of traffic on reptilian populations, mitigative measures like educational sign boards and lowering the frequency and limiting the speed of vehicles should be implemented for tertiary roads, particularly in protected areas, to reduce the road mortality of animals.

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**Fig. 1.** Road-killed female Oriental Garden Lizard (*Calotes versicolor*) in the Sathyamangalam Tiger Reserve, Tamil Nadu, India. Photograph by Puja Deb.

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