



Rapid Color Change in a Horsfield’s Spiny Lizard (*Salea horsfieldii*) in Nilgiris, India

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Horsfield’s Spiny Lizard (*Salea horsfieldii*) is an agamid endemic to the Western Ghats, where it is distributed at elevations of 1,600–2,500 m asl in the Nilgiri Hills of Tamil Nadu (Daniel 2002). At 1147 h on 8 July 2021, on a cool, cloudy day (ambient temperature 16 °C) at Ooty, Nilgiris, Tamil Nadu, India (11.41897°N, 76.71031°E), we encountered a Horsfield’s Spiny Lizard on a Crofton Weed (*Eupatorium adenophorum*) (Fig. 1). At the time of capture (body temperature 11 °C), this lizard was rather uniformly dark but within 7 sec its coloration had changed to reveal a distinct pattern (Fig. 2). An individual illustrated in Smith (1935) was very similar to our after-capture observation. Citing Wall (1922), Smith (1935) also noted that excited males become brilliantly colored.

A lizard’s ability to change color rapidly can serve multiple purposes. Especially for lizards living at high elevations or latitudes, color changes affecting reflectance (Bartholomew

1982; He et al. 2013) can facilitate thermoregulation when temperatures are not optimal (Bakken and Gates 1975; Reguera et al. 2014). Some lizards can employ rapid color changes to enhance crypsis (Duarte et al. 2017; Wuthrich et al. 2022). Also, some lizards change color rapidly during social interactions such as male-male conflicts and courtship (Teyssier et al. 2015; Ambedkar and Thaker 2019). Although the color change we observed was undoubtedly triggered by the stress of capture, the capacity to change color rapidly suggests that *Salea horsfieldii* does so for one or more of the purposes cited above.

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Fig. 1. A Horsfield’s Spiny Lizard (*Salea horsfieldii*) on a Crofton Weed (*Eupatorium adenophorum*). Photograph by Anbazhagan Abinesh.



Fig. 2. A Horsfield's Spiny Lizard (*Salea horsfieldii*) at the time of capture (left) and seven seconds later (right). Photographs by Anbazhagan Abinesh.

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