

## A Stationary Defensive Strategy Backfires: A Weasel Skink (Saproscincus mustelinus) Becomes Prey of a Lace Monitor (Varanus varius)

Matthew Mo

Sydney, New South Wales, Australia (matthew.sk.mo@gmail.com)

izards are prey of a wide range of predators (Wilson 2012), including other lizards (Lloyd et al. 2009; Badiane 2017). To reduce the likelihood of predation, lizards exhibit a varied array of defensive strategies (Žagar et al. 2015; Iglesias-Carrasco et al. 2016). One branch of strategies employs immobility, which apparently reduces the likelihood of detection by a potential predator. Examples include camouflage (Souza et al. 2020) and simply maintaining a low profile to avoid predator interest (Martín et al. 2009). This branch of strategies also includes death-feigning, which is believed to minimize further attack by a predator by reducing its need to further subdue the prey (Miyatake et al. 2004; Humphreys and Ruxton 2018). However, investing in stationary defensive strategies comes with risks that include enabling a potential predator to approach within close proximity (Martín et al. 2009) — and thus can have the opposite outcome.

On 3 November 2023, I observed a predator-prey interaction between a Weasel Skink (*Saproscincus mustelinus*) and a Lace Monitor (*Varanus varius*) in Valley Heights, New South Wales, Australia (-33.719944, 150.586194). The

entire interaction occurred on a walking track while I was concealed about 8 m away in understory vegetation on a rock ledge above the site. The Weasel Skink exhibited alert movement, intermittently shifting locations, and was thus known to be alive. I first saw the Lace Monitor about 40 m down the walking track. As the latter approached to within 2 m, the Weasel Skink became immobile while holding its limbs in a relaxed trailing posture. At this stage, the Lace Monitor appeared to be unaware of the Weasel Skink, even when within 1 m (Fig. 1); however, after tongue-flicking, the Lace Monitor located the still motionless skink, caught, and devoured it.

The Lace Monitor is a generalist carnivore (Weavers 1989; Guarino 2001) and a predator of other lizards (Lloyd et al. 2009; Pascoe et al. 2012). In this interaction, the Weasel Skink certainly reduced its profile and was not detected by the Lace Monitor until the latter was very close. However, in this instance, the risk of allowing the Lace Monitor to get within attack range exceeded any advantage of a reduced profile and resulted in the skink becoming a meal.





**Figure 1.** A tongue-flicking Lace Monitor (*Varanus varius*) strays within 1 m of a Weasel Skink (*Saproscincus mustelinus*) (bottom left of the image) (left) before honing in on the skink at a distance of 30–40 cm (right). Photographs by Matthew Mo.

## Literature Cited

- Badiane, A. 2017. Predation on an Eastern Water Dragon (*Intellegama lesueurii*) by a Heath Monitor (*Varanus rosenbergi*) in Royal National Park, Australia. *Herpetology Notes* 10: 339.
- Guarino, F. 2001. Diet of a large carnivorous lizard, Varanus varius. Wildlife Research 28: 627–630. https://doi.org/10.1071/WR01001.
- Humphreys, R.K. and G.D. Ruxton. 2018. A review of thanatosis (death feigning) as an anti-predator behaviour. *Behavioral Ecology and Sociobiology* 72: 22. https://doi.org/10.1007/s00265-017-2436-8.
- Iglesias-Carrasco, M., M.L. Head, and C. Cabido. 2016. Habitat dependent effects of experimental immune challenge on lizard anti-predator responses. *Behavioral Ecology and Sociobiology* 70: 1931–1939. https://doi.org/10.1007/ s00265-016-2199-7.
- Lloyd, R., R.A. Alford, and L. Schwarzkopf. 2009. Chemical discrimination among predators by lizards: responses of three skink species to the odours of highand low-threat varanid predators. *Austral Ecology* 34: 50–54. https://doi. org/10.1111/j.1442-9993.2008.01881.x.
- Martín, J., J.J. Luque-Larena, and P. López. 2009. When to run from an ambush predator: balancing crypsis benefits with costs of fleeing in lizards. *Animal Behaviour* 78: 1011–1018. https://doi.org/10.1016/j.anbehav.2009.07.026.

- Miyatake, T., K. Katayama, Y. Takeda, A. Nakashima, A. Sugita, and M. Mizumoto. 2004. Is death-feigning adaptive? Heritable variation in fitness difference of death-feigning behaviour. *Proceedings of the Royal Society B* 271: 2293–2296. http://doi.org/10.1098/rspb.2004.2858.
- Pascoe, J.H., R.C. Mulley, R. Spencer, and R. Chapple. 2012. Diet analysis of mammals, raptors and reptiles in a complex predator assemblage in the Blue Mountains, eastern Australia. *Australian Journal of Zoology* 59: 295–301. https://doi.org/10.1071/ZO11082.
- Souza, E., A. Coelho, A.P. Santos-Jr, R.A. Kawashita-Ribeiro, and R.D. Fraga. 2020. Thermoregulation mode, substrate temperature and camouflage efficiency affecting defensive behavior of lizards in Amazonia. *Acta Amazonica* 50: 339–345. http://doi.org/10.1590/1809-4392201904251.
- Weavers, B. 1989. Diet of the Lace Monitor Lizard (*Varanus varius*) in southeastern Australia. *Australian Zoologist* 25: 83–85. https://doi.org/10.7882/ AZ 1989 007
- Wilson, S.K. 2012. Australian Lizards: A Natural History. CSIRO Publishing, Collingwood, Victoria, Australia.
- Žagar, A., K. Bitenc, A. Vrezec, and M.A. Carretero. 2015. Predators as mediators: differential antipredator behavior in competitive lizard species in a multi-predator environment. *Zoologischer Anzeiger* 259: 31–40. https://doi.org/10.1016/j.jcz.2015.10.002.