REPTILES & AMPHIBIANS

Predation on an Asian Smooth Gecko (*Hemidactylus bowringii*) by a White-lipped Pitviper (*Trimeresurus albolabris*) in Hong Kong, China

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The complex relationships between predators and prey strongly influence the diversity and structure of animal assemblages (Nordberg and Schwarzkopf 2019; Junaid et al. 2025). Predator-prey interactions have long fascinated ecologists, and for good reason (Lima 1998). Understanding predator diets, foraging strategies, and prey selection is fundamental to assessing their influence on prey ecology, behavior, and distribution across ecosystems (Nordberg et al. 2018).

Figure 1. A White-lipped Pitviper (*Trimeresurus albolabris*) preying on an Asian Smooth Gecko (*Hemidactylus bowringii*) (A–C) and the final stage of ingestion (D). Photographs by Jake Hallam.

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Similarly, prey abundance and ecology influence predator survival, as supported by studies demonstrating links between predator and prey population growth rates and population sizes (Alonzo 2002; Hayward et al. 2006). Snakes and lizards are excellent model organisms for investigating aspects of predator-prey interactions (Downes and Shine 1998).

The White-lipped Pitviper is an arboreal species that is widely distributed across Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Thailand, and Vietnam (Stuart et al. 2012; Devan-Song et al. 2017; Anita et al. 2022; Vogel et al. 2023), where it inhabits a variety of habitats, including montane forests, open lowland plains, shrublands, and cultivated areas near human settlements (Stuart et al. 2012; Zhu et al. 2016). *Trimeresurus albolabris* feeds mainly on frogs and small mammals (Devan-Song et al. 2017; Bourke et al. 2020). *Hemidactylus bowringii*, listed as Least Concern according to the IUCN Red List (Wogan et al. 2019), is distributed in parts of China, Japan, Laos, Taiwan, and Vietnam (Xu and Ji 2007; Goldberg and Bursey 2010; Wogan et al. 2019); it is a nocturnal species commonly found in and around human dwellings as well as woodland habitats (Wogan et al. 2019).

At 1924 h on 3 April 2024, during a herpetofaunal survey in Aberdeen Country Park, Hong Kong (22.256420, 114.160510), we observed a White-lipped Pitviper (*Trimeresurus albolabris*) capturing an Asian Smooth Gecko (*Hemidactylus bowringii*). The snake captured its prey just behind the head and attempted to swallow it whole (Fig. 1A–C). Within four minutes, only one hindlimb and the tail of the gecko were visible during the final stage of ingestion (Fig. 1D). This event occurred alongside a paved path in Aberdeen Country Park. To the best of our knowledge, this is the first report of *T. albolabris* preying on *H. bowringii*.

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