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Predation of an Asian grassfrog, *Fejervarya* cf. *limnocharis*, by an Asian forest scorpion (genus *Heterometrus*) in central Myanmar

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Populations allied to *Fejervarya limnocharis* (Gravenhorst, 1829), commonly known as Asian grassfrogs or paddyfrogs, are widely distributed across South and Southeast Asia, with records from Myanmar (Zug et al., 2017). However, the taxonomic status of this group remains unresolved, with recent analyses indicating widespread misidentification and cryptic diversity within dicroglossid frogs across the region (Othman et al., 2024). In addition to natural habitat, these frogs commonly inhabit agricultural fields, drainage canals, roadside ditches, and human settlements (Vitt and Caldwell, 2014). While the diet of these types of frogs has been partially documented previously (e.g., Chuang and Borzée, 2019), published observations on predator-prey interactions involving these frogs in Myanmar remain relatively limited (Zug et al., 2017).

Scorpions of the genus *Heterometrus* are large, nocturnal predators distributed widely throughout tropical Asia (Polis, 1990). Their diet mainly consists of insects and other arthropods, though larger individuals occasionally take small vertebrates (Mirza and Sanap, 2010). Documented cases of *Heterometrus* scorpions preying on anurans are rare, and none have so far been recorded in Myanmar (Rodríguez Cabrera et al., 2021). Here, we report a predation event of a forest scorpion preying on a grassfrog in Myanmar.

On 27 October 2025 at 21:00 h, we observed a forest scorpion preying on an adult grassfrog in Paleik Township, Mandalay Division, Myanmar (21.8146°N, 96.0527°E; Fig. 1). The frog was identified as allied to *Fejervarya limnocharis* based on diagnostic morphological traits visible in the photographs, including body proportions and dorsum texture, which distinguish it from other members of the genus *Fejervarya* present in the area (Othman et al., 2024). In particular, the frog showed a relatively smooth dorsum with fine granulation, a faint but present mid-dorsal line, and proportionally slender limbs, all of which rule out *F. moodiei*, which exhibits a more tuberculate dorsum and heavier dorsal blotching (Kurniawan et al., 2011; Yodthong et al., 2019;). The scorpion was observed grasping the frog firmly with its pedipalps while delivering a sting with the aculeus. The frog appeared largely immobile during the interaction, consistent with the effects of envenomation.

The interaction occurred within a peri-domestic habitat inside a residential compound. The immediate microhabitat consisted of a raised concrete flower bed containing moist soil, low ornamental shrubs, potted plants, and sparse ground vegetation. The planter bed was bordered by paved bricks and adjacent to the wall of a residential building. The surrounding area included household objects such as clay pots, gardening materials, and containers, typical of a human-modified environment. The broader habitat comprised a mixed garden-yard landscape with scattered trees, shrubs, and open ground, providing suitable shelter and foraging opportunities for both arthropods and amphibians. At the time of observation, the site was partially illuminated by artificial light from a nearby window, which may have influenced the activity of both predator and prey. It is possible that the artificial light contributed to the interaction by attracting insect prey to the area, thereby drawing the frog into the illuminated microhabitat and increasing the likelihood of encountering the scorpion.

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Figure 1. An Asian Forest scorpion, genus *Heterometrus*, preying on an adult *Fejervarya* cf. *limnocharis* in Paleik Township, Mandalay Division, Myanmar, on 27 October 2025. (A) Scorpion grasping the frog with its pedipalps. (B) Scorpion feeding on the frog. Photos by Shine Myint Myat.

Artificial lighting may also enhance scorpion foraging activity by improving visibility and facilitating prey detection.

To our knowledge, this represents the first documented predation event involving a *Heterometrus* scorpion and a member of the *F. limnocharis* complex in Myanmar. Although vertebrate predation by scorpions is rarely reported in the literature, similar interactions involving anuran prey have been observed elsewhere. For example, in the West Indies, the Red Scorpion, *Heteroctenus junceus*, has been documented preying on frogs and other small vertebrates (Rodríguez Cabrera et al., 2021). Such observations are important for improving our understanding of trophic interactions and the natural history of Myanmar's amphibians, and they help fill critical knowledge gaps in local herpetofauna ecology (Aung et al., 2025).

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