

## Observations on an enigmatic dwarf monitor lizard (*Varanus cf. timorensis*) from Savu Island, Indonesia

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Savu is one of the smaller main islands in the Outer Banda Arc of the Lesser Sunda Archipelago. It is located between Sumba and Rote, and lies to the south of Flores across the Savu Sea (Fig. 1). The level of endemism in this region is relatively high compared to the main islands (e.g., Reilly et al., 2020). For example, the Savu Python (*Liasis mackloti savuensis* Brongersma, 1956) is endemic to Savu. Some herpetofaunal surveys have been conducted in this region of the Lesser Sundas, including Savu (Boulenger, 1897; Reilly et al., 2020), and a series of amphibian and reptile species has been reported from the island, including *Litoria everetti*, *Cyrtodactylus cf. laevigatus*, *Hemidactylus platyurus*, *H. frenatus*, *Lamprolepis smaragdina*, *Dendrelaphis inornatus*, *Indotyphlops braminus*, and *Varanus timorensis*. However, Savu's herpetofauna is poorly studied and additional surveys are required to uncover the island's hidden diversity and enigmatic species.

On 17–18 October 2022, we conducted a herpetofaunal survey on Savu (10.5°S, 121.9°E, general coordinates for the island are provided to protect the specific locality) from 08:00–16:00 h each day. During those surveys we encountered four individuals of a dwarf monitor lizard species, of which two were captured (Fig. 2) and allowed us to conduct a quick observation and obtain some measurements. These encounters are presented in detail below.

On 17 October 2022 at 12:30 h, we encountered an adult dwarf monitor lizard that we tentatively identify as *V. cf. timorensis*. This individual (Individual A; Fig. 2A) was traversing the leaf litter and then climbed a 2-m-tall tree. It measured 480 mm in total length and 180 mm in snout–vent length.

On 18 October 2022 at 11:55 h, we encountered another adult of the same species (Individual B; Fig. 2B, C), which was seen climbing 15–20 m up a tree. Individual B was 500 mm in total length and 185 mm in snout–vent length. The average body temperature of B was 37.5°C, the average temperature on the tree it climbed was 44.9°C, and the average ground surface temperature where we encountered the individual was a scorching 53.2°C (Fig. 2D). Unfortunately, we did not sex the individuals, which were returned to their original locations.

According to its range and previous records (e.g., Boulenger, 1897; Auliya and Koch, 2020; Uetz et al., 2022), *V. timorensis* is the only monitor lizard that occurs on Savu. When comparing our individuals to morphological descriptions of *V. timorensis* (Auliya and Koch, 2020), we noted that adult individuals from Savu had two morphological differences from adult *V. timorensis* (characters in parenthesis) as follows: (1) neck and back lack of irregular transverse rows of eye spots, tend to be solid dark at centre to side (presence of irregular transverse rows of dark-framed, yellowish eye spots), and (2) throat and axilla with irregular broad brown transverse lines bordered by dark spot (throat with dark marbling) (Fig. 2B–C). We provisionally suggest that these individuals from Savu may be a darker form of *V. timorensis*. However, without a thorough examination, including especially molecular data, the true identity of the dwarf monitor lizard from Savu cannot be determined. Given the level of divergence among monitor lizards in the Indonesian archipelago, a comprehensive assessment of the Savu population is urgently needed. Should these lizards turn out to be a distinct lineage, then their conservation is a high priority.

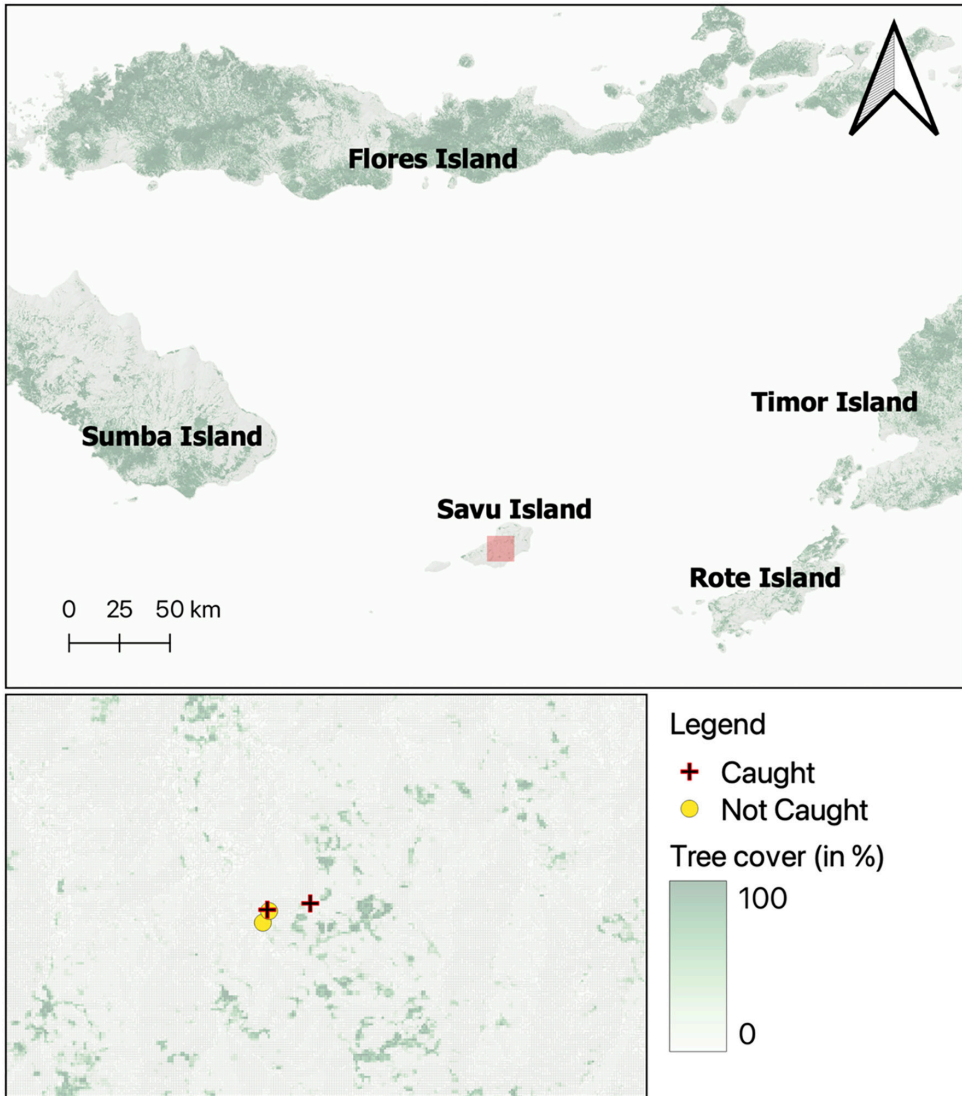
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**Figure 1.** Localities of *Varanus* cf. *timorensis* encountered on Savu Island, Indonesia during 17–18 October 2022 surveys.

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**Figure 2.** Adult individuals and habitat of *Varanus cf. timorensis* from Savu Island, Indonesia. (A) The first individual was observed moving through the leaf litter. (B) Portrait of the second individual seen showing its darker overall morphology compared with *V. timorensis* from other nearby islands. (C) The second individual was seen on a tree stump and subsequently climbed a tree. (D) Habitat of *Varanus cf. timorensis* on Savu. Photos by Ondrej Trávníček.