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First record of predation on reptiles by the Sakishima Rice Frog, *Fejervarya sakishimensis* Matsui et al., 2007, in Japan

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Fejervarya sakishimensis Matsui et al., 2007 is a large species of the *F. limnocharis* complex (adult snout–vent length [SVL] 49–69 mm in females, 45–56 mm in males) that is distributed in the Southern Ryukyus Islands, Japan. This species primarily inhabits marshes, ditches, rice paddies, and grasslands with temporary fresh-water pools, but it is also found in montane regions, and is often found in high density on forest floors (Matsui et al., 2007). This frog relies mostly on surface-roaming arthropods for its diet (Togane et al., 2020), and similar trends are observed in the congeneric species such as *F. kawamurai*, *F. limnocharis* and *F. cancrivora* (Hirai and Matsui, 2001; Doi, 2014; Nishikawa and Ochi, 2016; Takeuchi et al., 2019; Huang and Liao, 2021; Pratomo et al., 2024).

There are no reports of this species preying on non-arthropod animals, except for a case in which it attempted to prey on *Takydromus dorsalis* (Tanaka, 1987). Here, we report the first confirmed instance of *F. sakishimensis* preying on a reptile.

The frog that had preyed on a reptile was collected around 21:00 h on 8 September 2024. The collecting site was a forest, located in the northern part of Iriomote Island (centre at ca. 24.34°N, 123.83°E), Ryukyu Archipelago, Japan. The frog was located on the ground where leaves had piled up beside a gravel road about 3 meters wide in an evergreen broad-leaved forest. It was identified as an adult female *F. sakishimensis* because the SVL was 59.2 mm and it did not exhibit secondary sexual characteristics such as nuptial pads on the first finger or black M-shaped bands across throat (Matsui et al., 2007). We euthanised the frog promptly using MS-222 solution after collection and dissected it to examine the stomach contents (no permit required as it is not a protected species).

The necropsy revealed that one lizard was present in the stomach contents (Fig. 1). The eardrum of the lizard is covered with scales and not exposed, which is consistent with the characteristics of the family Agamidae (Okamoto, 2021). Because there is only one species of the Agamidae distributed on Iriomote Island, we identified it as *Diploderma polygonatum ishigakiense*. The lizard's tail length was 39.75 mm, but its total length could not be measured because the anterior part of the head was missing. The digestive tract of the frog also contained larvae of the family Cicadae.

Diploderma polygonatum is typically considered as arboreal, although it has been reported to forage predominantly on the ground during much of its active period (Ota, 2021). In this case, *D. p. ishigakiense* was probably preyed on by *F. sakishimensis* when descending to the forest floor. This finding suggest that the diet of

Figure 1. *Diploderma polygonatum ishigakiense* as a stomach content of *Fejervarya sakishimensis*. Photos by K. Akita.

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this frog is more diverse than suggested by Togane et al. (2020), and *F. sakishimensis* likely preys on organisms other than surface-roaming arthropods when available.

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