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Notes on the nesting, distribution, and natural history of *Zhangixalus faritsalhadii* Gonggoli et al., 2024 from Java, Indonesia

Ade Damara Gonggoli[1,2], Fajar Kaprawi[3,4], Haegal Alif[4], Anggi Permatasari[4], Ajadin Anhar[5], Agus Setiawan[5], Boby Darmawan[5], Tom Kirschey[6], and Amir Hamidy[2,*]

The genus *Zhangixalus* Li et al., 2019 currently comprises 46 recognised species (Frost, 2026). Four *Zhangixalus* species are known from the Sunda Region: *Z. prominanus* (Smith, 1924), *Z. achantharrhena* (Harvey et al., 2002), *Z. dulitensis* (Boulenger, 1892), and *Z. faritsalhadii* Gonggoli et al., 2025. The most recently described species, *Z. faritsalhadii*, was first discovered from Mt. Slamet, Central Java, Indonesia (Gonggoli et al., 2025). Since the species was only recently described, information regarding its distribution and natural history remains scarce. Therefore, observations on its geographic range, nesting behaviour, and reproductive ecology are particularly valuable.

During a field survey in December 2025, we recorded *Z. faritsalhadii* in the Mt. Gede Pangrango, Bogor, West Java, Indonesia (–6.7975°S, 106.8396°E; ~700 m elevation), within a forest patch dominated by Dammar Trees (*Agathis dammara*) (Fig. 1). The individuals were observed in amplexus during the daytime (~11:00–12:00 h) and moved downward to the ground and subsequently reached a water-filled discarded plastic container, where breeding occurred and eggs were deposited. The container was placed directly on the ground, had accumulated rainwater, and contained leaf litter and small twigs that had fallen from the surrounding Dammar Trees. The eggs were deposited in foam nest that was located approximately 0.5 m above the ground. The nest was suspended along the inner edge of the plastic container and was in contact with the water surface below (Fig. 1A).

This observation is consistent with previous studies indicating that species of *Zhangixalus* characteristically produce foam nests during reproduction (Wells, 2007; Fei et al., 2012; Dufresnes et al., 2022). Although foam nesting is a common reproductive trait within the genus, nesting behaviour varies considerably among different species (Dufresnes et al., 2022). Among the Sunda region species, *Z. dulitensis*, *Z. prominanus*, and *Z. achantharrhena* have been documented depositing foam nests on overhanging vegetation or tree leaves, categorised as arboreal nesting (Dufresnes et al., 2022). In contrast, the observed *Z. faritsalhadii* laid its foam nest on an artificial plastic container, an abiotic substrate that would be classified as scansorial. The use of an artificial plastic container as an oviposition site may represent an important component of the breeding behaviour of the species, particularly in the absence of natural streams or stagnant water bodies in the immediate surroundings. In other members of the genus, foam nests may also be deposited on the ground and buried in muddy or mossy substrates, representing a terrestrial nesting strategy (Dufresnes et al., 2022). The present observation expands the known diversity of nesting sites used by *Zhangixalus* and further supports the considerable plasticity in nesting behaviour within *Zhangixalus* (Dufresnes et al., 2022).

[1] Department of Biology, Faculty of Mathematics and Natural Sciences, Universitas Indonesia, UI Campus, Depok 16424, Indonesia.

[2] Laboratory of Herpetology, Museum Zoologicum Bogoriense, Research Center for Biosystematics and Evolution, National Research and Innovation Agency (BRIN), Gd. Widyasatwaloka, KST Soekarno, Jl. Raya Jakarta Bogor km 46, Cibinong, Bogor, West Java 16912, Indonesia.

[3] PT Gaia Eko Daya Buana (Gaia Indonesia), CEO Building, Jl. TB Simatupang No. 18C, Level 12, South Jakarta 12430, Indonesia.

[4] Amfibi Reptil Sumatra, Bogor, West Java 16100, Indonesia.

[5] Mount Gede-Pangrango National Park, Ministry of Environment and Forestry, Jl. Kebun Raya Cibodas P.O. Box 3, Cimacan, Cipanas, Cianjur, West Java 43253, Indonesia.

[6] Kompetenzzentrum Natuerlicher Klimaschutz, ZUG gGmbH, Stresemannstr. 69–71, Berlin 10963, Germany.

[*] Corresponding author. E-mail: amir006@brin.go.id

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Figure 1. Habitat and breeding site of *Zhangixalus faritsalhadii* in Mt. Gede Pangrango, West Java, Indonesia. (A) *Z. faritsalhadii* in amplexus position. (B, C) Discarded plastic container used as a breeding site, containing rainwater and leaf litter. (D) The Dammar forest habitat where the species was observed in amplexus and breeding. Photos by Agus Setiawan (A) and Haegal Alif (B–D).

Our record from Mt. Gede Pangrango extends the known distribution of *Z. faritsalhadii* approximately 267 km west of the type locality, Mt. Slamet (Fig. 2). In addition, another record was documented through a citizen-science observation from Mendolo Village, Lebakbarang, Pekalongan, Central Java, Indonesia (–7.0969°S, 109.6341° E; 481 m elevation) (Sidiq, 2025). Based on currently available records, the species is known to occur at elevations between 481–773 m on Java. These records suggest that *Z. faritsalhadii* might be more widely distributed across the montane forests of Java than is presently documented.

Detecting this species in the field can be challenging because breeding activity appears to be seasonal, while adults spend much of their time high in the forest canopy. During a subsequent survey on 2 April 2026, no individuals were observed, and only calls were heard approximately 10–15 m above the ground, supporting its predominantly arboreal habits. However, the call of the species could not be recorded during this survey.

These new records are important as they extend the known geographic distribution of *Z. faritsalhadii* beyond the type locality on Mt. Slamet. Given the limited information currently available for this recently described species, additional surveys are needed

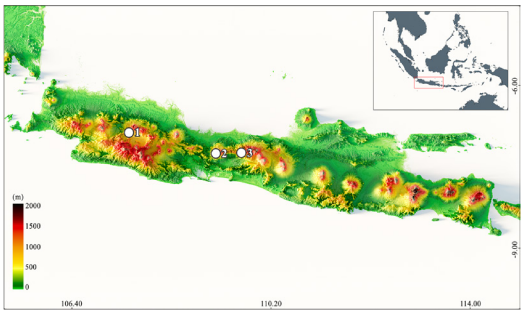


Figure 2. Distribution of *Zhangixalus faritsalhadii* in Java Island. (1) Mt. Gede Pangrango, (2) Mt. Slamet, (3) Mendolo.

to determine its full distributional range, ecology, behaviour, and conservation status.

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