Conserving the Critically Endangered Du Toit's Torrent Frog (*Arthroleptides dutoiti*) in Mt. Elgon National Park, Uganda

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Progress Report

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Abstract

This report presents findings from the second phase of surveys on the Critically Endangered Du Toit's Torrent Frog (*Arthroleptides dutoiti*) in Mt. Elgon National Park, Uganda. Conducted between 11th and 17th February 2026, the surveys covered five river systems during the dry season, enabling improved access to breeding habitats that are typically difficult to reach. While no confirmed records of *Arthroleptides dutoiti* were obtained, the surveys generated important ecological insights. Riverine frog species (*Amietia nutti* and *Amietia wittei*) were recorded in the Amanang and Nyalit Rivers, indicating that suitable habitat conditions for the target species persist. Evidence of anthropogenic pressures, particularly irrigation and grazing, was also documented in the Alalam and Bukwa Rivers.

In addition to field surveys, awareness sessions were conducted with students from Bukwo Elite Primary School and Amanang Secondary School, and a stakeholder workshop involving 30 participants identified irrigation as the primary pressure on aquatic habitats. Proposed mitigation measures included sustainable agriculture, vegetation buffer establishment, and construction of small water-retention dams. These findings collectively highlight both the continued suitability of key habitats and the urgency of targeted conservation interventions.

Step 1: Field Activities

A seven-day field survey was conducted from 11th to 17th February 2026, during the dry season across both protected and unprotected areas of the Mt. Elgon Conservation Area. Surveys focused on the Suam, Amanang, Bukwa, Alalam, and Nyalit Rivers. Reduced water levels during the dry season improved access to previously inaccessible habitats and enabled more thorough searches of potential breeding and refuge sites.

Although no individuals of *Arthroleptides dutoiti* were confirmed during this survey, several important findings strongly indicate that the species may persist undetected within the landscape. Notably, Amanang and Nyalit Rivers supported relatively high abundances of riverine frog species (*Amietia nutti* and *Amietia wittei*), which occupy ecological niches closely aligned with that of *Arthroleptides dutoiti*. This indicates that suitable habitat conditions remain intact and capable of supporting the target species. The absence of detections is therefore more likely attributable to the species' cryptic behavior, low detectability, or seasonal activity patterns rather than true absence.

Taxonomic identification of observed species was supported by senior herpetologist **Dr. Mathias Behangana**. Importantly, the survey has generated promising leads, including potential candidate specimens now preserved at the Museum of Zoology, Entomology and Fisheries Sciences, Makerere University. However, confirming the taxonomic status of *Arthroleptides dutoiti* will require targeted genetic and molecular analyses, which are currently constrained by limited resources. These results mark an important step in refining survey approaches and narrowing priority habitats for subsequent investigation.

Plates 1: Encountered River frogs that occupy ecological niches closely aligned with that of *Arthroleptides dutoiti,* taken Violet Kantono

Plate 2: Visual Encounter Surveys at **Suam River** with support of UWA rangers & local monitors, taken by Mathias Behangana

Plate 3: Visual Encounter Surveys at **Amanang River** with support of Bukwo District Natural Resources Officer & local monitors, taken by Mathias Behangana

Plate 4: Visual Encounter Surveys at **Alalam River** with support of Bukwo District Natural Resources Officer & local monitors, taken by Mathias Behangana

Step 2: School Outreaches and Advocacy

Public awareness and advocacy sessions were conducted with students from science and wildlife clubs at **Bukwo Elite Primary School** and **Amanang Secondary School** on 13th Feb 2026 from 9:00–10:15 am and 12:00–1:00pm respectively, both located within the project area. These sessions aimed to sensitize young learners and future conservationists about *Arthroleptides dutoiti*, its ecological importance, priority habitats, prevailing threats, and potential mitigation measures. The outreach activities contributed to increased awareness and helped foster a sense of local stewardship, which is critical for the long-term conservation of this species and its habitat.

~~Plates 5: Photographs from Bukwo Elite Primary School awareness sessions with science club pupils & teachers, taken by Mathias Behangana~~ [Intentionally removed]

Plates 6: Photographs from Amanang Secondary School awareness sessions with wildlife club students and science teachers, taken by Mathias Behangana & Benson Rono

Step 3: Local stakeholder workshop

A stakeholder workshop involving **30 participants** was held at Bukwo Local Government Community Hall from 3:00–4:30PM. Participants included local community members, local

council leaders, Uganda Wildlife Authority staff, and Bukwo District Local Government representatives. The workshop focused on raising awareness about *Arthroleptides dutoiti* and its critical habitats.

Key threats were discussed, with irrigation identified as the primary pressure affecting aquatic habitats. Proposed mitigation measures included promoting sustainable agricultural practices, establishing vegetated buffer zones using native grasses to reduce runoff, minimizing pesticide use, and constructing small water-retention dams to reduce pressure on critical aquatic habitats. This engagement strengthened collaboration and generated locally relevant solutions to ongoing conservation challenges.

~~Plates 7: Photographs from Amanang Secondary School awareness sessions with wildlife club students and science teachers, taken by Mathias Behangana & Benson Rono~~ [Intentionally removed]

Next Steps:

- Continued and expanded species monitoring by trained local community monitors, with monthly reporting of sightings and habitat observations using standardized smartphone-based tools.
- Strengthening collaboration with the Uganda Wildlife Authority and district local government through coordinated engagements to support ongoing conservation actions.

Conclusion

While *Arthroleptides dutoiti* has not yet been conclusively recorded, survey results and ecological indicators strongly suggest that suitable habitats persist within the Mt. Elgon landscape. The project has significantly strengthened baseline knowledge, built local capacity, and established a solid foundation for continued monitoring and adaptive conservation action. With sustained support, the project is well-positioned to confirm the species' status and inform targeted conservation interventions.