

PROGRESS PROJECT UPDATE

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Project Title: Understanding the Ecology, and Conservation of Hansen's Warty Frog, and Community Empowerment along South Nguru Forest Reserve, Tanzania

- Introduction

Hansen's Warty Frog (*Callulina hansenii*) is a critically endangered amphibian species found exclusively in the South Nguru Mountains of Tanzania, part of the globally significant Eastern Arc biodiversity hotspot. This montane forest specialist is restricted to elevations around 1790 meters, where it depends on cool, moist habitats that are increasingly threatened by deforestation, agricultural expansion, and unsustainable resource use. Despite its ecological importance, *Callulina hansenii* remains poorly understood, and urgent conservation action is needed to prevent further population decline.

This project seeks to advance scientific knowledge of *Callulina hansenii* while promoting inclusive, community-led conservation across the South Nguru Forest Reserve. By conducting targeted field surveys, researchers will map the species' distribution, assess habitat quality, and identify key ecological requirements. These findings will inform conservation planning and contribute to updated IUCN Red List assessments. At the same time, the project will engage local communities through environmental education, sustainable livelihood initiatives, and participatory forest governance. This dual approach ensures that conservation efforts are both scientifically grounded and socially sustainable.

The South nguru forest reserve is not only home to rare and endemic species but also supports the livelihoods of surrounding communities. By integrating ecological research with grassroots empowerment, this initiative aims to protect *Callulina hansenii* and its habitat while enhancing community resilience and stewardship. Ultimately, this project contributes to the long-term preservation of biodiversity in the Eastern Arc Mountains and demonstrates the power of collaborative conservation in safeguarding Tanzania's natural heritage.

- Activities implemented

- (a)Project start

Since the project start in March significant progress has been made through field surveys conducted in Mkingu Nature Forest Reserve. These surveys have focused on assessing the population status and distribution of *Callulina hansenii*, a critically endangered amphibian endemic to the Eastern Arc Mountains.

- (b)Project highlights

This ongoing conservation project for a critically endangered Hansen's warty frog species, has successfully identified and located the habitat and a remaining population of this species in specific areas. The frogs are more active at night, where they can be located through sound and visual inspections along small rivers and nearby vegetation cover within the Mkingu nature forest reserve. We have identified 21 females, 14 males, and 6 juveniles so far, which clearly indicates that this forest reserve is still an important stronghold for the breeding and habitat for this frog species. Further, through field observation the project has identified threats that this

frog species encounters in its habitat, with logging, land cover change and pet trade being the major causes with a potential higher impact.

Beyond our primary target species, we have also encountered other endangered frog species, of the same genus including *Callulina meteora*, *Callulina kanga*, and *Callulina krefftii*, all of which share the same habitat and could also benefit from the conservation efforts that are directed towards Hansen's warty frog.

(c) Rising awareness and Capacity building

We have already begun raising awareness in the local community as part of the project awareness efforts include conducting village meetings, distributing educational posters and engaging school programs to teach students about the ecological importance of *Callulina hansenii*. We also use storytelling and local radio broadcasts to share conservation messages and encourage community participation in conservation activities.

(d) Next step

The next phase of the project will focus on systematic monitoring of *Callulina hansenii* populations and expanding community awareness efforts.

We will conduct regular field surveys across key forest zones to track population trends, breeding activity, and habitat conditions. These surveys will help refine conservation strategies and identify priority areas for protection.

Also we proceeding to raise awareness, by organizing village workshops, school outreach programs, and forest walks for students and youth groups. Educational materials including posters, leaflets, and storytelling sessions—are being distributed to foster local understanding of the frog's ecological role. We also collaborate with village environmental committees and use local radio broadcasts to share conservation messages widely.