

THE RUFFORD FOUNDATION

MID-TERM REPORT – 2nd RUFFORD SMALL GRANT (ID: 45601-2)

Project Information

Project Title: Scaling up Pangolin Research and Conservation in West Africa – Identification of Priority Hotspots in Cameroon

Organisation: Foundation for Restoration and Environmental Conservation (FReECo)

Project Leader: Esong Lionel Ebong

Reporting Period: June – November 2025

Country: Cameroon

1. Executive summary

This mid-term report summarizes progress made toward filling critical knowledge gaps on pangolin ecology, distribution, and threats within the Guinean Forest Biodiversity Hotspot (GFBH).

Based on data gaps on pangolin occurrence in Cameroon, this project identified two (02) landscapes that have not witnessed no effective studies on species status and threats; (1) The Bakossi National Park (BNP) is a protected area within the [Bakossi Forest Reserve](#) located at [5.049907°N and 9.567719°E](#) (5° 2' 59.66" N, 9° 34' 3.79" E) covering a surface area of 29,320 hectares (72,500 acres. It is the only National Park in the Cameroon Highlands Forests Eco-region (WWF, 2013); (2) The Proposed Njaowi Fotabong III Essoh- Ettah Wildlife Sanctuary is located on the mountainous northeastern part of South West Region in the Lebialem Highlands. The area ranges from 180m to about 2510m above sea level. It is situated between latitudes 5° 11" and 5° 45" and longitudes 9° 50" and 10° 00".

Using a Local Ecological Knowledge (LEK) framework encoded on KoboCollect, field teams conducted preliminary visits to understudied pangolin hotspots in Cameroon (project country), as well as in other countries within the GFBH.

A comprehensive pangolin occurrence database has been compiled from literature, GBIF, iNaturalist, social media like Facebook and Instagram and prior studies. Initial LEK surveys have generated occurrence points, perceived threats, and ecological insights.

Species Distribution Modelling (SDM) workflows have been configured in Wallace/R, with preliminary layers assembled and early models under testing. Camera trapping is scheduled for January to March 2026 after SDM refinement.

2. Progress against objectives

Objective 1: Database compilation and identification of understudied hotspots – 70% complete.

Objective 2: LEK surveys in 10 understudied sites – 45% complete.

Objective 3: Updated SDMs for three pangolin species – 60% complete.

Objective 4: Dataset preparation for IUCN PSG and THRESCOAL – 80% complete.

3. Activities completed so far

- Comprehensive literature and database mining completed.
- Environmental and anthropogenic spatial layers compiled.
- KoboCollect tool developed, tested, and deployed.
- LEK surveys completed in 09 communities (Elum2, Muaku, Muebah, Epenebel, Bermin, Bangem, Muatan-Aku, Kodmin, Ngonmin) in the Bakossi Forest Landscape, and 03 communities in Lebialem's Proposed Njoagwi Fotabong .
- Preliminary SDM testing conducted using Wallace.

4. Preliminary results

- Early suitability patterns influenced by canopy cover, slope, elevation, and human footprint.
- Community participants report reduced pangolin sightings in recent years.
- Threat patterns indicate persistent hunting pressure and snaring.
- Preliminary SDMs align with early LEK-identified hotspots.

5. Challenges encountered

- Heavy rainfall caused access delays in some sites.
- KoboCollect syncing delays addressed via offline mode.
- Difficulty identifying older pangolin signs increased reliance on LEK.

6. Timeline tracking

- ❖ Database compilation: Oct 2024–March 2025 – Completed.
- ❖ LEK surveys: Apr–Jun 2025 – completed.
- ❖ Preliminary SDM modelling: Sept - Dec 2025 – Ongoing.
- ❖ Camera trap deployment: Jan–March 2026 – Pending (as planned).

7. Financial statement (Mid-term)

Removed in online version

8. Communication & outputs

- LEK survey photos (attached).
- Preliminary SDM map drafts.

- KoboCollect screenshots.
- Draft communication to IUCN SSC Pangolin Specialist Group.

9. Adjustments to work plan

No major methodological adjustments were required or made.

Camera trapping will proceed after SDM refinement, as originally planned.

10. Plans for remaining project period

- Complete SDMs and climate projections.
- Deploy 40 camera traps.
- Conduct transects for model validation.
- Complete preparation of datasets for THRESCOAL and IUCN PSG.
- Produce manuscript and Cameroon pangolin factsheet.

11. Annexes (To attach)

- Field photos.
- Preliminary SDM maps.
- KoboCollect tool.
- Sample LEK dataset.