Project Update: January 2017

The project's aims to engage local communities' in awareness and recording breeding sites of amphibians was achieved. More than 100 of farmers have been met in their farm during the past 3 months on Bamboutos and 29 shepherds on Mount Mbam. We also visited the Bali – Ngemba Forest Reserve, a submontane forest, and 60km from Mount Oku, as a reconnaissance for surveying amphibians in this poorly studied forest. This increases the number of study sites for potential refuges for rare amphibians, as well providing replication of study sites. During these 3 last months, many small localities around the main sites have been visited. Different anthropogenic activities and main breeding sites have been recorded. Threat factors we have registred were bushfires, agriculture and destruction of natural forests replaced by Eucalyptus plantations. *Leptodactylodon bicolor* (VU) was recorded from the end of rainy season (October 2016) at an altitude of 1540 in Bali-Ngemba that is so far the highest point where this species has been recorded in my study area. All the breeding points and GPS positions have been recorded and mapped with QGIS. *Leptodactylodon bicolor* seems to be very sensitive to human disturbances as they have been recorded only on their breeding site in pristine or secondary forests. However, *Arthroleptis palava* (LC) was observed regularly far from water between October to end of December.

Figure 01: *Leptodactylodon bicolor* (VU) from Bali-Nguembat (1540 m a.sl.)

A presentation on the importance of amphibians in the environment and the impact of human activities on the biological diversity was made during the **23rd Annual Conference of the Cameroon Bioscience Society. Theme: Biosciences and Integrated Management of Living Systems.** Université des montagnes, Bangangté-Cameroun, from November 29 - December 03, 2016.

Commented [WU1]: This should be a new paragraph as it describes a different activity to your engagement with the local stakeholders.

Perhaps you should put this at the end of the report, as it describes more of an output of the work.

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Figure 02 : Tchassem presenting the main results

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Seasonal activitiy patterns of amphibians in these mountains have been recorded by this project. Some species frequently encountered (*Astylosternus ranoides, A. rheophilus, Leptodactylodon perreti* and *Leptodactylodon axillaris*) have not been observed in the field since the beginning of the dry season. So far, *Leptodactylodon bicolor* has been recorded only in few localities in Cameroon. During our surveys, this rare species seems not to share its habitat.

Practical application of this project's findings has been realised through the collaboration with Conservation Research and Action for Amphibians of Cameroon (CRAAC), an international conservation initiative run from the Royal Zoological Society of Scotland in partnership with Cameroonian herpetologists and conservationists. The collaboration has helped with planning conservation management, as well as sharing of survey data to help establish the status of amphibians in the Bamenda Highlands. There was also the opportunity to expand the work slightly to reptiles such as snakes, where training in handling was possible.


Figure 03: Thomas Doherty Bone and Tchassem collecting samples

We have considered some aspects to be very important for the next steps:

1) **Habitat Restoration**; create tree nurseries to raise seedlings of native species of plants and seed them in the degraded habitats.
2) **Translocation**; for conservation purposes, this will consist to establish new populations of endangered frogs with a view to enhancing their local representatively.
3) **Awareness reinforcement**: further involve local villagers and ensure they understand the importance of protecting these frogs and their habitat.
4) **Assess impacts of chemical contaminants** on the reproduction of frogs in the streams