

Impact Spotlight

Mai Ndombe REDD+ Project

Q1 2023

EVER
LAND

WILDLIFEWORKS 



SPOTLIGHT SUMMARY

“Good decisions must be made on sound knowledge of what’s at stake. This is what’s being done with the biodiversity assessment - we are trying to understand the ‘what’ and the ‘why,’ before going into the ‘how.’”

-Raymond Lumbuenamo, Wildlife Works Mai Ndombe REDD+ Project, Chief Operating Officer

The Mai Ndombe REDD+ Project protects 300,000 hectares of critical bonobo and African forest elephant habitat within the world’s second-largest intact rainforest and some of the most important wetlands on the planet. To help protect this invaluable landscape and the biodiversity that calls it home, a specialized team in biodiversity monitoring works in partnership with local community members to track high biodiversity areas twice a month. Through this team’s hard work, the project monitors population trends of high conservation value species. Camera traps were placed along transects to record the presence of various species, and recces were made to assess the scope and severity of human induced threats and map wildlife tracks.

One of the most important roles biodiversity monitoring plays is strengthening the feedback link between human actions and the environment. For example, by systematically monitoring species’ populations over time and space, the Mai Ndombe REDD+ Project team is armed with the necessary knowledge to inform the type and placement of conservation measures that are fit for purpose. Effective conservation of biodiversity within and surrounding the project area depends on sound knowledge of the habitats and their condition, as well as the distribution of species, their population sizes and dynamics, habitat needs, and individual threats.





KEY ACTIVITIES



At the beginning of the project, biodiversity information for Mai Ndombe was severely limited (Toham et al., 2006). At the time, the information that was available was strongly biased toward a few vertebrate species (Bonobos, Elephants, Sitatunga), but was incomplete even for these (Scholes et al., 2006). This prompted a quest for more comprehensive information to assist in designing activities tailored to achieving the project's strategic objectives:

1. Retain intact forests and ecosystem integrity at the landscape level.
2. Promote recovery of habitat as well as native flora and fauna.
3. Retain rare and ecologically valuable species.
4. Increase local and outside knowledge of the area's biodiversity values.

A first attempt to assess biodiversity status and trends in the project area was a coarse-level survey of the flora and fauna conducted in 2012. The survey was initiated through a partnership with the Missouri Botanical Garden and local DRC affiliates. Many commercially exploited tree species were identified within the terra firma forest in parts of the project zone, including seven threatened tree species: African ebony (*Diospyros crassiflora*), Tiama (*Entandrophragma angolense*), Sipo (*Entandrophragma utile*), Light bossé (*Guarea cedrata*), Black guarea (*Guarea thompsonii*), and African walnut (*Lovoa trichilioides*).

Four major ecosystems in the project zone were also identified, these are: evergreen terra firma forest (both logged and unlogged), seasonally inundated forest, permanently inundated forest and savanna (both anthropogenic and natural). Although none of these ecosystems are particularly rare in the central to western Congo Basin, terra firma forests in particular, with their high concentrations of valuable timber trees, remain very attractive to commercial and small-scale loggers. The complete destruction of the Mayumbe coastal forest is evidence of their commercial value.



MILESTONES

Information gathered through biodiversity monitoring activities has provided the project with important information for conservation planning and community engagement efforts. Through information sharing workshops with Wildlife Works, communities have gained access to information around the importance of conservation, and have co-developed new strategies to protect the forest. Using findings from the biodiversity monitoring activities, community awareness raising workshops have made meaningful contributions to reducing poaching and slash and burn agriculture in the project zone.

Biodiversity monitoring activities are also important to decision makers who base their decisions on sound data. It arms the project field teams with the necessary information to communicate the effectiveness of project investments, raise awareness and improve the participation of communities in conservation. In addition, knowing the trends of species, the intactness of key habitats and the overall integrity of the ecosystems informs where the most favorable conditions exist to support the economic and social needs of communities while achieving climate change mitigation outcomes. All are prerequisites to achieving the project's conservation objectives.





MILESTONES



Allen's Swamp Monkey
(*Allenopithecus nigroviridis*)
Sightings: 12



Bay Duiker
(*Cephalophus dorsalis*)
Sightings: 183



Blue Duiker
(*Philantomba monticola*)
Sightings: 94



Yellow-backed Duiker
(*Cephalophus silvicultor*)
Sightings: 15



Red-Tailed Monkey
(*Cercopithecus ascanius*)
Sightings: 18



Wolf's Monkey
(*Cercopithecus wolfi*)
Sightings: 7



African Civet
(*Civettictis civetta*)
Sightings: 1



Black-and-white colobuses
(*Colobus angolensis*)
Sightings: 8



Grey-cheeked Mangabey
(*Lophocebus albigena*)
Sightings: 2



African Elephant
(*Loxodonta*)
Sightings: 64



Long-tailed Pangolin
(*Phataginus tetradactyla*)
Sightings: 9



Bonobo
(*Pan paniscus*)
Sightings: 90



This quarter, biodiversity monitoring activities focused mainly on improving current knowledge of existing species in the project area, particularly wildlife categorized as critically endangered or endangered on the IUCN Red List. Camera traps were placed along transects to record the presence of various species, and recces were made to assess the scope of severity of human induced threats and map wildlife tracks. The frequency of wildlife sightings captured by the cameras helped assess the probable abundance and distribution of key species. A stratified sampling plan (White & Edwards 2000) was set up with a size grid of 2kmx2km of cells in which cameras were placed in the most active tracks used by the animals. The assessment of the relative abundance of each large mammal species and human activities is based on the kilometeric abundance index (IKA) of each species. (Blake et al, 1996).

During this quarter, only the terra firma primary forest was monitored due to the few number of cameras available and some battery issues. In total, five long transects were surveyed. Based on the results of early surveys, the management team now has a set of information on which to base its decision - they now know that the concession has three main vegetation strata, i.e. the evergreen terra firma forest, the swamp forest, and the savanna; each vegetation type requiring a different management approach. The project's biodiversity monitoring team also now know that the primary forests still harbor populations of elephants, bonobos, sitatungas and a few other species.



THE FUTURE

In the short term, the project aims to build the capacity of Local Development Committees (CLDs) and community members to systematically monitor changes in the biodiversity values within their territories. This includes the socio-economic, cultural and political issues present, but also the threats that affect these important biodiversity attributes. This capacity building will prepare communities to take ownership of this important work and ensure its long term durability.

Long-term success is defined as communities having sustainable access to essential resources and information, enabling them to effectively conserve their natural resources, and witness profound generational transformations resulting from their conservation activities. Biodiversity monitoring is proving pivotal in raising the level of awareness among the forest communities in Mai Ndombe on the intertwined relationship between human activities and the delicate ecosystem dynamics. This improved knowledge will only help the project's ongoing efforts to co-develop alternative sources of income and livelihood opportunities that don't depend on extraction of these irreplaceable natural resources.

