

### Ankafobe Forest Madagascar: new challenge from warm ashes

The climate of the Malagasy highlands is characterized by dramatically contrasting seasons: five months of plentiful rainfall and seven months of near drought. During the wet season the grasslands grow luxuriously but this biomass then dries up under the influence strong winds that sweep over the plateau almost continually, leading to frequent and extensive wild fires. Under these conditions it is remarkable that any forest occurs in this landscape, but a few fragments do survive and, provided their canopy remains intact, they are largely able to resist fire. These small patches of forest support a rich fauna and flora, including many threatened species – a good number of which are known nowhere outside the Malagasy highlands. What’s more, they are living “fossils” of a once widespread vegetation type that was much more extensive before human colonization.



Part of the Ankafobe Forest prior to the fire



Firebreaks at Ankafobe forest in 2021



The brown lemur at Ankafobe



*Schizolaena tampokestsana*, known only from Ankafobe

MBG supports a community-based conservation project at the Ankafobe Forest, a recently established protected area that comprises three of these highland forest fragments. Initiated in 2007, the project mainly focus on conserving the forest and in protecting and restoring parts that have been burned in the past. Over the last 15 years, the Garden’s efforts at Ankafobe were very successful and the site was seen as a model for community-based conservation in Madagascar. But all that changed tragically on October 6 and 7, 2022 when, stoked by ferocious winds, cinders from a multi-pronged grassland fire that had evaded the project’s fire-fighting teams leapt the 70 foot-wide firebreak and spread into one of the forest fragments, which had been partially degraded by selective timber exploitation in 2004. Once within the forest, our staff and 80 local helpers watched helplessly as flames consumed about 35 acres of precious forest before finally burning itself out. Undeniably a lot was lost, but, not everything: the two nearby fragments escaped burning and at

least some of the resident lemurs were able to find refuge there. Even within the burned forest, some mature trees are likely to recover, even though their leaves are wilted.



The fire of October 6–7



Ankafobe after the fire



The fire fighters – MBG staff and dedicated members of the local community

Despite these events, we have no intention of abandoning Ankafobe: highland forest is far too rare and too many people have worked so hard over many years just to walk away. So, we have decided to embrace this challenge and turn it into something positive. First, we want to make sure that the enriching cinders scattered over the now-bare forest floor are not lost to wind or erosion, and we want to protect the soil from both sun and the compressing impact of rain (which, ironically, is expected soon). In the next six weeks we will turn the cinders into the soil and sow the entire burned area with seeds of native woody pioneer species. Then, over the next 14 months, we will invest in controlling alien invasive species (which could easily take over the site if given free rein) and propagate 50,000 seedlings in village nurseries of a range of tree species native to this landscape, and plant them below the sheltering canopy of the pioneer species. Finally, by making controlled early season burns in the grassy zone between the forest and the firebreak, we will make sure we never again have to face the consequence of catastrophic fires.

Our vision is not just to restore native forest at Ankafobe, but build something that is better than what we had before. Over the years we have observed the forest fragments, which once dotted the landscape around Ankafobe, have become increasingly rare and more degraded. So, we propose to invest in collecting seeds of as many native tree species as possible from all of the forest fragments that remain within 5 km of the Ankafobe protected area. This will enable us to conserve the Ankafobe forest while at the same time making an important contribution of the conservation of the threatened flora of Madagascar's highlands.