

Identification of new areas for botanical inventory in Kivu, Democratic Republic of Congo

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Abstract

Overall, the digitalization of herbaria in the Democratic Republic of the Congo (DRC) has already reached a high level. All herbaria in the country have begun to use this method of long term conservation of information and images on African plants. About 20,000 specimens of plants have already been scanned and their associated meta(data) been encoded or updated. Using these basic data, determination gap analyses can be conducted to determine the areas yet to explore. Such gap analysis has been undertaken in the Kivu region using the botanical collections preserved in Lwiro (LWI) and Mulungu (MLGU) in order to orient future botanical inventories.

The gap analysis here presented covers three provinces: North-Kivu, South-Kivu and Maniema. Specimens from LWI and MLGU were studied taxonomically and the specimens were georeferenced using the index of collecting localities of Bamps (1982).

The areas of the future botanical inventories in the Kivu have been identified using the Geographical Information System software DivaGIS (<http://www.diva-gis.org/>). An analysis on specimens previously collected in the Eastern part of Kivu in the Democratic Republic of Congo has been done *via* the collection management software Botanical Research And Herbarium Management System BRAHMS (<http://herbaria.plants.ox.ac.uk/bol/brahms/>) in use at the herbaria of Lwiro and Mulungu and enabled to identify four big areas (Kahuzi-Biega National Park in low altitude, Itombwe reserve, Virunga National Park and Maiko National Park) that are good candidates for the upcoming inventories.