

# Chapter 1

## Rapid survey of the plants of North Lorma, Gola and Grebo National Forests

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### SUMMARY

As the dry season had not really started yet, very few plants were flowering or fruiting during our expedition. The total number of species recorded from the three sites in North Lorma, Gola and Grebo National Forests is 548, however 101 (18%) are endemic to the Upper Guinea forest area (Upper Guinea sensu White). The North Lorma and Gola National Forests are considered to be healthy and mature and show only limited disturbance by human activity, which, at the moment does not cause a clear threat to the vegetation. Grebo National Forest was logged about 20 years ago and is now in the process of regeneration and is recovering well. We found three species endemic to Liberia (*Cephaelis micheliae*, *Sericanthe adamii* and *Trichoscypha linderi*) and three species recorded for the first time the country (*Elytraria ivorensis*, *Gardenia nitida* and *Zanthoxylum psammophilum*). Additionally, three species likely to be new to science were found: *Drypetes* sp., *Leptoderris* sp. and *Rhaphiostylis* sp.

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### INTRODUCTION

Liberia lies almost entirely within the Upper Guinea forest block, which forms the western part of the West African Guinean Forests hotspot, one of the 34 biologically richest and most endangered terrestrial ecoregions in the world (Mittermeier et al. 2004). The Upper Guinea forest as a whole is threatened, and while most other West African countries have lost the majority of their forest cover (e.g. most of the mature forest in neighboring Côte d'Ivoire is already gone), Liberia's forest cover still seems to be quite extensive. Liberia was originally more than 90% forested, and is currently still covered in large part by mature forest. Liberia's forests are, however, increasingly threatened by logging, shifting agriculture, and hunting and mining activities, with logging companies, such as the Oriental Timber Company, recently demonstrating that these forests can disappear in just a few years when large areas are not protected from exploitation.

Most Upper Guinea endemics are concentrated in and around Liberia and species composition varies greatly within the Liberian forest. Important differences exist between the very wet coastal forest of central Liberia and the much drier forest near the border with Guinea. Variation in rain-fall patterns with increasing seasonality from southeast to northwest Liberia also have an important influence on the vegetation. Liberia's botanical richness is thus certainly not adequately protected within Sapo National Park alone and additional protected areas covering a variety of habitats are needed. More biodiversity research is urgently needed to make it possible for the Liberian government to choose the best locations for new protected areas. Most Liberian forests have never been studied by botanists and many undiscovered species are to be expected here.

During the rapid botanical survey of the North Lorma, Gola and Grebo National Forests we did not attempt to compile a complete list of all plant species occurring at the three sites. With approximately 2300 species known from Liberia (Jongkind 2004), including many epi-