

## Chapter 3

### Rapid survey of amphibians and reptiles of North Lorma, Gola and Grebo National Forests

*Annika Hillers and Mark-Oliver Rödel*

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#### SUMMARY

During a herpetological survey of three national forests in northwestern (North Lorma, Gola) and southeastern (Grebo) Liberia we recorded at least 40 amphibian and 17 reptile species. Fifteen amphibians are on the IUCN Red List: 11 are classified as Near Threatened, two as Vulnerable and two as Endangered. We observed five species that had not been recorded in Liberia before. For several species our findings represent large range extensions. Five of the reptile species recorded and one amphibian are listed under CITES. All three forests have a high conservation value as their herpetofauna mainly consists of forest specialists which are endemic to the Upper Guinea forest block.

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#### INTRODUCTION

Liberia is assumed to harbour a high biodiversity and to be one of the richest countries in animal and plant species in West Africa (Bakarr et al. 2001). The diversity of amphibians and reptiles is also thought to be extremely high and to comprise a great number of Upper Guinea endemics. The eastern part of the country (Cape Palmas) in particular is assumed to be very rich in species since it was a rainforest refugium in northern glacial times, which were dry periods in Africa (e.g. Sosef 1994). However, while the herpetofauna of neighboring Guinea and Côte d'Ivoire is relatively well documented (e.g. Guibé and Lamotte 1958a, 1958b, 1963; Schiøtz 1967, 1968; Böhme 1994a, 1994b; Rödel and Bangoura 2004; Rödel et al. 2004; Greenbaum and Carr 2005) and surveys were conducted in Sierra Leone's forests in 2005 (Hillers et al. in prep.), there are almost no recent herpetological data available for Liberia.

Whereas most other West African countries have lost most of their forest cover (e.g. more than 80% of Côte d'Ivoire's forests have been logged during the last 30 years: Chatelain et al. 1996), Liberia's forests seem to still be quite extensive. They are, however, increasingly threatened by logging, shifting agriculture, hunting and mining activities. Therefore data on species' occurrence in Liberia and, more specifically, their distributions within the country, are urgently needed.

Amphibians and reptiles are not only important with regard to biodiversity. They are extremely sensitive to habitat changes, which qualifies them as excellent bio-indicators. The composition of amphibian assemblages may indeed be indicative of the quality of a habitat (compare Rödel and Branch 2002; Rödel and Ernst 2003; Ernst and Rödel 2005; Ernst et al. 2006). Based on this knowledge, conservation recommendations can be made.