

Chapter 4

A rapid assessment of the ants of the Boké region, Guinea

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INTRODUCTION

It is well known that tropical forests contain the majority of known terrestrial animal and plant species as well as many species yet to be discovered. Unfortunately, these forests are also under increasing pressures for human use, causing forest fragmentation and destruction. The loss of forest habitats can lead to the extinction of endemic species.

Forest loss is occurring throughout Africa, including in the Guinean Forest region, notably in the northeastern part of Guinea, which is called “Guinée Maritime”. In this part of Guinea, the forest is under pressures from shifting agriculture and mining.

Faced with unprecedented levels of degradation, there is no doubt that this region should be considered as a hotspot for biological diversity. It is thus important to conduct inventories in order to know more about the species found in this area, which can aid in developing conservation strategies for areas that are directly impacted by humans.

The objective of the scientific expedition organized by Conservation International’s Rapid Assessment Program (RAP) was to provide an account of the biological diversity of three sites in the Boké region of Guinée Maritime and to make recommendations concerning the conservation of the species found there.

Several plant and animal taxonomic groups are used as biological indicators to evaluate and monitor environmental quality. Among the insects, ants (Hymenoptera: Formicidae) have been used as tools for natural resource management. Numerous studies have shown that ants can be useful for evaluating the status of ecosystems in which they live (Alonso 2000, Andersen 2000, Kaspari and Majer 2000).

Ants are grouped among the social insects, which also include bees, termites and a few other insect groups. Ants are present in all terrestrial habitats. Ants are important in many ecosystem functions, particularly in trophic networks as a predator of other arthropods and as an almost unlimited food source for vertebrates such as frogs, lizards, birds, bats and other insectivorous mammals. Ants also have a great impact on the formation of soil through their movement of soil particles (Folgarait 1998).

For these reasons, ants were included in the RAP biodiversity survey in Guinea. In addition to providing information for conservation, this study on ant diversity is also important since it greatly enhances our scientific knowledge of ants in this region, as no studies on ants have been done here previously. The nearest location for which ant data are available is Bolama in Guinée Bissau (about 100 km from this study area). Therefore this RAP survey provided the opportunity to find endemic ant species that are potentially threatened by the high level of forest degradation in the area.

STUDY SITES

Three sites within the Boké Préfecture were surveyed during this RAP expedition:

- 1) **Sarabaya (Rio Kapatchez)** (April 23-28, 2005)