## **Chapter 6**

Amphibians and reptiles of the Acarai Mountains, and Sipu, Kamoa and Essequibo rivers in the Konashen COCA, Guyana

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## **SUMMARY**

The herpetofauna recorded during the 2006 RAP survey of the Konashen Community Owned Conservation Area (COCA) in Guyana included 26 species of amphibians and 34 species of reptiles. The amphibians include representatives of the orders Gymnophiona (caecilians) and Anura (toads and frogs). More than half of the recorded anurans were treefrogs (Hylidae), with 13 species (54% of all recorded species), followed by the Leptodactylidae, with five species. Within reptiles, two species of crocodilians, three turtles, 14 lizards and 16 snakes were recorded. The blind snake Typhlophis ayarzaguenai represents the first record of this species for Guyana. The aquatic lizard *Neusticurus* cf. rudis, the snake *Helicops* sp., and the caecilian may also represent new records for the Guyana herpetofauna, but require additional taxonomic reviews. The three focal areas explored during this survey differed significantly in their faunistic composition. The surveyed region appears intact and in pristine condition, particularly the Acarai Mountains and the flooded forests adjacent to the main channels of the Kamoa and Sipu rivers. The area of the Essequibo River closest to Masakenari and Akuthopono villages showed a lower abundance of medium-to-large bodied reptiles, turtles and caimans, which are a part of the Wai-Wai diet, but populations of other reptiles and amphibians seemed to be in good condition. Taxa used by local communities should be monitored for signs of overexploitation.

## INTRODUCTION

The knowledge of Guayana Shield herpetofauna, while fragmentary, is increasing rapidly, particularly with respect to the highlands or Pantepui, over 150 m asl (McDiarmid and Donnelly 2005, Avila-Pires 2005). Señaris and Avila-Pires (2003) list only 40 localities with a medium or high degree of herpetological exploration, including four in Guyana (Raleigh Falls, Kabalebo, Iwokrama, and Bartica), whereas the knowledge of the herpetofauna of most of the lowand medium-elevation lands in the Guayana Shield remains poor or none. During the last year several herpetological surveys at different sites in Guyana have taken place, demonstrating rich biodiversity and high levels of endemism, associated mainly with upper elevations and highlands (e. g. Cole and Kok 2006, Donnelly et al. 2005, Ernst et al. 2005, Kok et al. 2006, MacCulloch and Lathrop 2002, 2005; MacCulloch et al. 2006).

Despite the increasing knowledge of amphibians and reptiles in Guyana, the southern part of the country has yet to be explored. Southern Guyana has been cited as a high research priority because it harbors large, contiguous forests, and a high diversity of habitats. In particular, the herpetofauna of the Acarai Mountains and the upper Essequibo River have never been surveyed. Theses areas have potentially high species richness, indicated by the presence of both Guayana Shield and Amazonian faunistic elements. In an effort to increase the knowledge of this area, during a Rapid Assessment survey (RAP) in October 2006, we collected and observed herpetofauna of the Konashen COCA, and the results of this survey are presented here.