

Chapter 1

Katydids of selected sites in the Konashen Community Owned Conservation Area (COCA), Southern Guyana

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SUMMARY

The survey of katydids (Orthoptera: Tettigoniidae) of the Konashen COCA of southern Guyana revealed a high species diversity of these insects, resulting in a 130% increase of the katydid fauna of this country. Seventy-three species were recorded, 58 of which (79%) were new to Guyana, and at least seven were new to science. Combined with 44 species previously recorded, the known katydid fauna of Guyana now includes 101 species, yet this number probably represents only about 30% of the actual diversity of these insects. Virtually all species recorded during this survey are indicative of undisturbed forest habitats.

INTRODUCTION

Despite the recent increase in the faunistic and taxonomic work on katydids (Orthoptera: Tettigoniidae) of the northern Neotropics, forests and savannas of the Guayana Shield remain some of the least explored, and potentially most interesting regions of South America. Collectively, over 190 species of the Tettigoniidae have been recorded from the countries comprising the Guayana Shield (Venezuela, Guyana, Suriname, and French Guiana), but this number clearly represents only a fraction of the actual species diversity in this area. Most of the known species were described in the monumental works by Brunner von Wattenwyl (1878, 1895), Redtenbacher (1891), and Beier (1960, 1962). More recently Nickle (1984), Emsley and Nickle (2001), Kevan (1989), and Naskrecki (1997) described additional species from the region. Overall, forty-four species of katydids have been recorded from Guyana, but it is likely, based in part on the result of this survey, that at least 250-300 species occur there.

Katydids have long been recognized as organisms with a significant potential for their use in conservation practices. Many katydid species exhibit strong microhabitat fidelity, low dispersal abilities (Rentz 1993), and high sensitivity to habitat fragmentation (Kindvall and Ahlen 1992) thus making them good indicators of habitat disturbance. These insects also play a major role in many terrestrial ecosystems as herbivores and predators (Rentz 1996). It has been demonstrated that in the neotropical forests katydids are themselves a principal prey item for several groups of invertebrates and vertebrates, including birds, bats (Belwood 1990), and primates (Nickle and Heymann 1996). While no neotropical species of katydids has been classified as threatened (primarily because of the paucity of data on virtually all species known from this region), there are already documented cases of species of nearctic katydids being threatened or even extinct (Rentz 1977).

The following report presents the results of a Rapid Assessment survey (RAP) of katydids conducted between October 7-27, 2006 at selected sites within the Konashen Indigenous District of southern Guyana. All collecting sites of the survey were located within the boundaries of the Community Owned Conservation Area (COCA), a protected area belonging to the Wai-Wai community. The katydid fauna of this area, similar to that of most of the country, has never been surveyed, and most species found during the RAP survey represent new records for Guyana.