

Chapter 6

A rapid biological assessment of katydids of the Kwamalasamutu region, Suriname (Insecta: Orthoptera: Tettigoniidae)

Piotr Naskrecki

SUMMARY

Seventy-eight species of katydids (Orthoptera: Tettigoniidae) were recorded during a rapid biological assessment of lowland forests of the Kwamalasamutu Region, Suriname. At least seven species are new to science, and 29 species are recorded for the first time from Suriname, bringing the number of species of katydids known from this country up to 85. The current survey confirms that the katydid fauna of Suriname is exceptionally rich, yet still very poorly known. Although no specific conservation issues have been determined to affect the katydid fauna, habitat loss in Suriname due to logging and mining activities constitute the primary threat to the biota of this country.

INTRODUCTION

Katydid (Insecta: Orthoptera: Tettigoniidae) have long been recognized as organisms with a significant potential for 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) thereby 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 katydids are a principal prey item for several groups of invertebrates and vertebrates in Neotropical forests, including birds, bats (Belwood 1990), and primates (Nickle and Heymann 1996). While no Neotropical katydids have 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 some Nearctic katydids becoming threatened or endangered, or even extinct (Rentz 1977.)

Despite the recent increase in the faunistic and taxonomic work on katydids of the Neotropics, forests of the Guiana Shield remain some of the least explored and potentially interesting areas of South America. Collectively, over 190 species of the Tettigoniidae have been recorded from countries comprising the Guiana Shield (e.g., Venezuela, Guyana, Suriname, and French Guiana), but this number clearly represents a small fraction of the regional species diversity, and at least 300–500 species can be expected to occur there. Fifty-six species have been reported from Suriname (Eades et al. 2011). Virtually all of these records are based on material collected in the 19th century, and no targeted survey of the katydid fauna of the country has ever been conducted. Most of the species from Suriname were described in the monographic 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.

The following report presents preliminary results of a survey of katydids conducted between 17 August and 9 September 2010 at selected sites in the Kwamalasamutu region of southern Suriname.