Chapter 11

Rapid Assessment Program (RAP) survey of small mammals in the Kwamalasamutu region of Suriname

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SUMMARY

In a Rapid Assessment Program (RAP) survey of the Kwamalasamutu region of southern Suriname, 38 species of small mammals were documented including 26 species of bats, 10 species of rats, and two species of opossums. The species diversity and relative abundance of rats at three sites around Kwamalasamutu were the highest recorded in 20 years of mammal surveys throughout Suriname and Guyana by the Royal Ontario Museum. Kutari was the most successful site for rats, indicating a healthy source of prey species for predators such as cats, owls, and snakes. In contrast, Werehpai was the most successful for bats but this was attributable to the well-established trails to the petroglyphs approximately 3.5 km from the river, which functioned as flyways that were more conducive for capture success compared to the other two sites where rudimentary trails were only recently cut. This indicates that bats are relatively tolerant to minor alternations to their habitat. Noteworthy records include two species endemic to the Guiana Shield, a water rat (*Neusticomys oyapocki*) and a brush-tailed rat (*Isothrix sinammariensis*), collected at Kutari that represent the first occurrences of these species in Suriname.

INTRODUCTION

Small mammals (bats, rodents, and opossums) comprise 80% of the mammalian species diversity in the Guianas (Lim et al. 2005). However, they are poorly known in comparison to the more charismatic and conspicuous larger species such as monkeys and cats. Approximately 200 species of mammals have been reported from Suriname. Small mammals are particularly important for conservation because many are fruit-eaters that disperse seeds necessary for natural forest succession, nectar-feeders that pollinate flowers, and insect-eaters that control natural populations through their foraging behavior and diet. High species diversity and relative abundance make small mammals an ideal group for rapid assessment program (RAP) surveys and long-term monitoring. This is particularly important for regions such as the Kwamalasamutu area that have not been thoroughly surveyed for biodiversity and conservation purposes.

STUDY SITES AND METHODS

We surveyed three sites in the Kwamalasamutu region: Kutari River (N 2.17538, W 56.78786), surveyed for six nights from 18–23 August; Sipaliwini (N 2.28979, W 56.60708), surveyed for five nights from 27–31 August; and Werehpai (N 2.36271, W 56.69860), surveyed for five nights from 2–6 September. Mist nets were also set at the petroglyph caves on the last night at the Werehpai site.

To survey non-volant small mammals during the RAP, we used Sherman live traps of two sizes: small (23 × 8 × 9 cm) and large (35 × 12 × 14 cm). Traps were set approximately five meters apart along transects on the ground near burrows, base of large trees, tree falls, along