



## Report at a Glance

Source: A Rapid Biological Assessment of the Kwamalasamutu region, Southwestern Suriname: 11

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## **DATES OF RAP SURVEY**

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August 18–September 8, 2010

## **DESCRIPTION OF RAP SURVEY SITES**

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The Kwamalasamutu region refers to the area of lowland tropical forest surrounding the Trio settlement of Kwamalasamutu. At a minimum, it encompasses the eastern portion of the upper Corantijn watershed, or an area extending from the village south to the Brazilian border, east to the Sipaliwini savanna, north to the Eilerts de Haan and Wilhelmina mountains, and west to the Upper Corantijn River. This vast area is sparsely populated, and its biota is poorly known relative to central and eastern Suriname. The elevation of the region is mostly between 200–400 meters (higher in the south along the Brazilian border), but scattered granitic formations to the north and east of Kwamalasamutu approach 800 m. The region is entirely forested. The RAP team worked around three study sites on the Kutari and Sipaliwini Rivers, each accessible within a day's travel by boat from Kwamalasamutu. The fish and water quality teams also sampled along waterways between our camps. At all sites, the predominant terrestrial habitat was tall forest on both well-drained and seasonally inundated soils.

## **REASONS FOR THE RAP SURVEY**

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In 2000, a cave with extensive petroglyphs (Werehpai) was discovered near the village of Kwamalasamutu. Shortly thereafter, the community established the Werehpai/Iwana Samu Sanctuary to serve as an ecotourism site and game reserve, both to generate income for the community and to protect populations of animals upon which the people of Kwamalasamutu depend for food. Conservation International–Suriname has since been working with the community and several donor agencies to establish infrastructure and maintain the sanctuary.

The purpose of this RAP survey was to establish baseline information on the region's biodiversity to inform ecotourism and future monitoring efforts, focusing on Werehpai and the surrounding region. We sought especially to gather information on plant and animal species important to the Trio people, and to provide recommendations that will support sustainable harvest and management practices. The overall goal was to bring together the knowledge and expertise of local people with scientific knowledge to study and plan for monitoring of biological and cultural resources of the Kwamalasamutu region.

## MAJOR RESULTS

The RAP team found the Kwamalasamutu region to harbor a rich biodiversity, with few signs of ecosystem degradation. However, there were indications that hunting and fishing pressure have affected the local abundance of some large-bodied mammals, birds, reptiles, and fishes. There was also some evidence of mercury contamination in the rivers, although levels of mercury were considerably lower than has been recorded in watersheds where extensive gold mining occurs. The majority of species found were typical of lowland forests of the Guiana Shield. At least 46 species were new to science, and due to the limited extent of sampling, it is highly likely that many more undescribed species exist in the region.

### Number of species recorded

Plants	>240
Ants	>100
Aquatic Beetles	144
Dung Beetles	94
Dragonflies and Damselflies	94
Katydids and Grasshoppers	78
Fishes	99
Reptiles and Amphibians	78
Birds	327
Small Mammals	38
Large Mammals	29

### Number of species new to science

Aquatic Beetles	16–26
Dung Beetles	10–14
Dragonflies and Damselflies	4
Katydids and Grasshoppers	7
Fishes	8
Reptiles and Amphibians	1

### New records for Suriname

Plants	8
Aquatic Beetles	45
Dung Beetles	5
Dragonflies and Damselflies	14
Katydids and Grasshoppers	29
Fishes	2
Reptiles and Amphibians	2
Birds	4
Small Mammals	2

## CONSERVATION RECOMMENDATIONS

The ecosystems of the Kwamalasamutu region face few immediate threats; however, they should be managed to ensure that key ecological processes are not disrupted through contamination of watercourses, large-scale resource exploitation, or depletion of animal populations. We particularly recommend that small-scale gold mining activities be aggressively discouraged in the region. A water quality monitoring program should be implemented by the community to detect contamination from any mining activities. Fifteen species listed on the IUCN Red List of Threatened Species (IUCN 2011) were encountered during the survey. Populations of game animals and fishes should be managed through means best suited to the interests and needs of the community, preferably through a network of reserves with limited hunting seasons for particular species. Domesticated animals should be encouraged as an alternative protein source.

The Kwamalasamutu area's pristine nature, high diversity of birds and other taxa, and abundance of large mammals, including jaguar and ocelot, make it ideal for ecotourism. Tourism should be promoted and supported as a means of protecting the wildlife of the area and of providing employment and livelihood for many people of Kwamalasamutu.