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Report at a Glance

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Report at a Glance

DATES OF RAP SURVEY

March 8–29, 2012

DESCRIPTION OF RAP SURVEY SITES

The RAP team surveyed the aquatic and terrestrial flora and fauna of the Upper Palumeu River Watershed of Southeastern Suriname, close to the border with Brazil. This area is possibly the most remote, pristine, and unexplored rainforest region of Suriname. The area is entirely forested with 16 different land cover types ranging from lowland floodplain forest to isolated mountain peaks over 780 m elevation. The RAP team surveyed four sites: 1) Upper Palumeu River, where the river becomes a small creek, mostly seasonally flooded forest with some high dryland forest on granite hills and swamp forest at ~270 m a.s.l., 2) Grensgebergte mountaintop at 800 m, exposed granitic rock surrounded by forest, with a mixture of vegetation types including cyper grasses and bromeliads with orchids and gesneriads on the slopes, low shrub vegetation on the rock, low savannah forest and dryland forest on granite hills, 3) Makrutu Creek at the junction of the Upper Palumeu River and the Makrutu Creek, aquatic ecosystems and seasonally flooded forest along the waterways, and 4) Middle Palumeu River and Kasikasima Mountain, a unique granitic mountain formation that rises over 700 m above the rainforest with vegetation similar to that of the Grensgebergte, and lowland (~200 m a.s.l.) seasonally flooded forest, high dryland forest on granite hills, and savanna forest.

REASONS FOR THE RAP SURVEY

Southeastern Suriname is one of the last extensive, pristine tracts of rainforest left on Earth. Conservation of these forests and rivers, and the natural services they provide to the people of Suriname is important to the future of the country and the region. Since virtually nothing is known scientifically, the first step in protecting Southeastern Suriname is to collect baseline biological and socio-economic data for the region. This RAP survey provides data to guide conservation and sustainable development activities in Southeastern Suriname and provide the scientific justification for protection of this diverse and important region.

MAJOR RESULTS

Results from all of the taxonomic groups surveyed during the RAP survey reveal that Southeastern Suriname contains very high biodiversity and is in pristine condition with virtually no human influence. All of the taxonomic groups except the large mammals indicate that Southeastern Suriname is unique from other areas of the Guiana Shield, containing many species not found elsewhere. Plant species composition differs from the flora of northern Suriname and several bird species appear in Southeastern Suriname that are not found in the north. Water quality and fish diversity are high, indicating that the area, which encompasses the headwaters of many of Suriname's major rivers, provides plentiful freshwater resources. The range of elevations within the mountain ranges and the pristine nature of the lowland forests within Southeastern Suriname contribute to the high biological diversity of the region. We found over fifty species that are probably new to science, including eleven fishes, six frogs, one snake, and many insects. The RAP results highlight the importance of the diversity of the forests, species, and watersheds of Southeastern Suriname.

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Species recorded during the Southeastern Suriname RAP survey, March 2012

Taxon	Camp 1 Upper Palumeu (Juuru) 277 m	Camp 2 Grensgebergte Mountain 790–820 m	Camp 3 Makrutu River Camp 240–260 m	Camp 4 Kasikasima 201 m	Total (all 3 camps)	# species potentially new to science	# species new records for Suriname
Plants	161	68	27	161	354		15
Aquatic Beetles	92	10	-	105	157	26	TBD*
Dung Beetles	93	40	-	74	107	10	TBD
Katydids	29	2	-	34	52	6	
Ants	72	25	-	92	149	TBD	TBD
Fishes	71	-	16	49	94	11	2–4
Reptiles	26	7	-	21	42	1	
Amphibians	30	6	-	24	47	6	
Birds	196	103	-	233	313		
Small Mammals	25	12	-	23	39		
Large Mammals	16	-	-	20	24		
Total	811	273	43	836	1378	60	17–19

*TBD = To be determined.

Species of Conservation Concern documented during the 2012 RAP survey of Southeastern Suriname

IUCN Red List of Threatened Species categories: VU=Vulnerable, CR=Critically Endangered (see www.redlist.org); CITES (Convention on International Trade of Endangered Species and Wild Flora and Fauna) Appendices I, II, and III (see www.cites.org)

Group	Species	IUCN or CITES category
Plants		
	Vouacapoua americana	CR
	Syagrus stratincola	VU
Orchidaceae	*Cleistes rosea*	CITES Appendix II
Orchidaceae	*Dichaea picta*	CITES Appendix II
Orchidaceae	*Epidendrum densiflorum*	CITES Appendix II
Orchidaceae	*Epidendrum nocturnum*	CITES Appendix II
Orchidaceae	*Maxillaria discolor*	CITES Appendix II
Orchidaceae	*Phragmipedium lindleyanum*	CITES Appendix II
Birds		
	Pipile cumanensis	VU
	Crax alector	VU
	Myrmotherula surinamensis	VU
	Patagioenas subvinacea	VU
Mammals		
	Pteronura brasiliensis	EN
	Tapirus terrestris	VU
	Ateles paniscus	VU

CONSERVATION RECOMMENDATIONS

Southeastern Suriname is a global natural treasure. There are very few places left on Earth that are as pristine and untouched as this region. The region contains high diversity of plants and animals and a unique composition of species that sets it apart from other areas of Suriname, the Guiana Shield, and the world. Southeastern Suriname contains the headwaters of some of the largest rivers of Suriname that provide clean drinking water and food sources for the people of Suriname, as well as supporting downstream agriculture and energy production. The region's intact forests provide a continuing source of food, medicines and building materials for local people, as well as regulating regional and global climate. Our findings also show that Southeastern Suriname will be disproportionately important for providing freshwater resources under future climate change scenarios.

We strongly recommend protection of Southeastern Suriname to preserve its unique and diverse species and freshwater resources for the people of Suriname and the world, today and for generations to come.

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