



Photo by Andy Dosmann

Background

Sustainable tourism is meant as a means of economically supporting an area while protecting the environment. Two aspects contribute to truly sustainable primate-based tourism. First, the primate population cannot be negatively affected. Second, tourists must have a good experience so that they recommend the location to others. Prior research demonstrates that tourists want a memorable experience: for wildlife-based tours this includes close contact with the animals (including eye contact) and observation of natural behaviors (Arnould and Price 1993,Chapman 2003; Farber and Hall 2007). I studied primate response to tourist presence in the Central Suriname Nature Reserve through a theoretical lens of predator/prey interactions in order to determine if tourism in the area was having a negative effect on the primates.

Methods

Study Site

The study was conducted at Raleighvallen Nature Preserve (RV), a 7812 km² reserve located within the 16,000 km² Central Suriname Nature Reserve. The site is isolated, inaccessible by road, and in the interior of Suriname. RV is in the Coppename river drainage, and is comprised mainly of lowland rainforest. Tourism at the site is low, with about 1300 tourists visiting per year. Further descriptions of the site can be found elsewhere (Boinski et al. 2003; Boinski et al. 2002; Fleagle and Mittermeier 1980; Mittermeier and van Roosmalen 1981).

Tourists visit RV to hike up the 240 m tall Voltzberg, a granite inselberg. To reach the Voltzberg tourists must take a boat from their quarters on an island in the river to the trailhead, and then walk a seven kilometer trail to the foot of the Voltzberg. The entire round trip generally takes seven to eight hours with about half the time spent getting to the Voltzberg and back and the other half spent climbing the inselberg itself. Tourists taking part in this expedition are the focus of this research.

Data Collection

I completed 48 “tour follows” of 365 individual tourists along the tourist trail RV. During each tour follow I recorded behaviors of the tourists , size and speed of the tour group and behaviors of any primates encountered. During each primate encounter I collected data on general troop characteristics such as location and movement as well as number of alarm calls heard and presence or absence of fleeing. In addition, I recorded tourist made noise via a battery-powered tape recorder and an omni-directional microphone attached to a bandanna on my head. I recorded during 3 randomly chosen 15-minute intervals and later calculated the percent time spent “noisy” for each tour group.



Creating sustainable primate-based tourism: a view from the Central Suriname Nature Reserve

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Species	Feeding observed?	Tourists seen as threat?
Brown capuchin	Yes	No
Squirrel monkey	Yes	No
Spider monkey	No	Yes
Howler monkey	Yes	No
Bearded saki	Yes	Yes
Tamarin	No	Yes
Wedge-cap capuchin	No	Yes

Table 1: Response to tourists and observation of feeding.

Alarm calls?	Tourist noise (% time)
Yes	31.9
No	39.9
Fleeing observed?	Tourist noise (% time)
Yes	35.5
No	38.8

Table 2: Noisiness of tour groups and anti-predator response of primates. Noisier tour groups do not result in more alarm calls and fleeing. Results not significant, Kruskal-Wallis, alpha=.05.

Alarm calls?	Tour group size
18%	11+
20%	5-10
Fleeing observed?	Tour group size
15%	11+
11%	5-10

Table 3: Tour group size and % primate encounters resulting in anti-predator behavior. Larger tour groups do not result in more anti-predator behavior. Results not significant, Kruskal-Wallis, alpha=.05.

Alarm calls?	Average time tourists spent on trail
Yes	4.69 hours
No	4.65 hours
Fleeing observed?	Average time tourists spent on trail
Yes	4.91 hours
No	4.63 hours

Table 4: Tour group speed and primate anti-predator behavior. faster tour groups do not result in more anti-predator behavior. Results not significant, Kruskal-Wallis, alpha=.05.



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Conclusions

•To be truly sustainable, tourism must minimize ecological impacts but also be economically beneficial to an area.

•Tourists prefer close contact with wild animals and observations of natural behaviors.
•At RV, response to tourists vary by species.

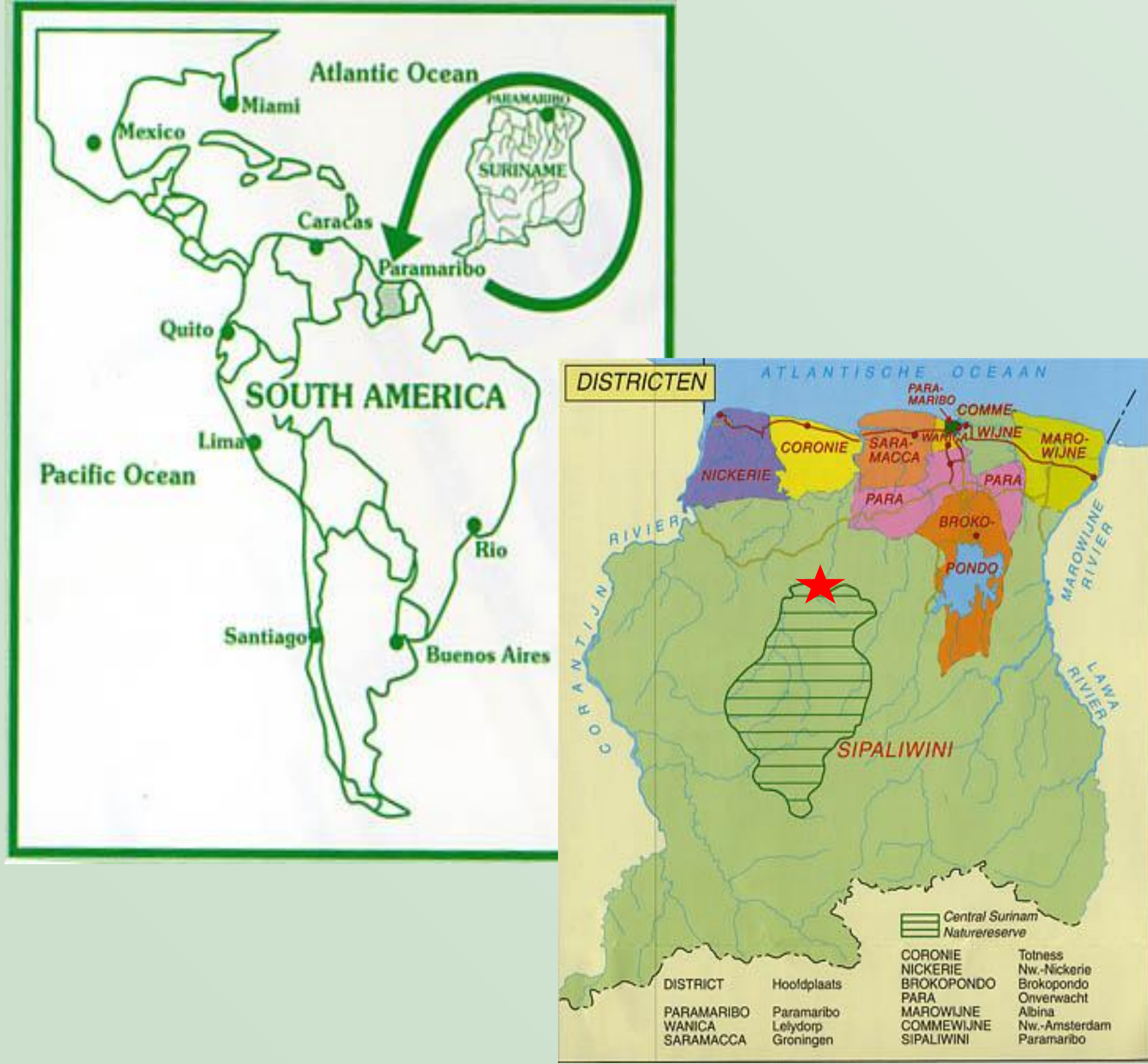
•Except for bearded sakis, all species who respond to tourists with anti-predators also limit feeding time when in contact with tourists.

•Contrary to expectations, noisy, large and fast moving tour groups do not elicit more anti-predator behaviors than quieter, smaller, and slower moving tour groups. In fact, there is a possible trend in the opposite direction.

•In some circumstances, tourism can have little apparent impact on primate species.

•Tourism can focus on species who demonstrate least disturbance in the presence of tourists. In addition, tourists are more likely to see these species performing natural behaviors such as feeding, increasing tourist satisfaction

•Fewer, larger tour groups may actually help minimize disturbance in an area.



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