



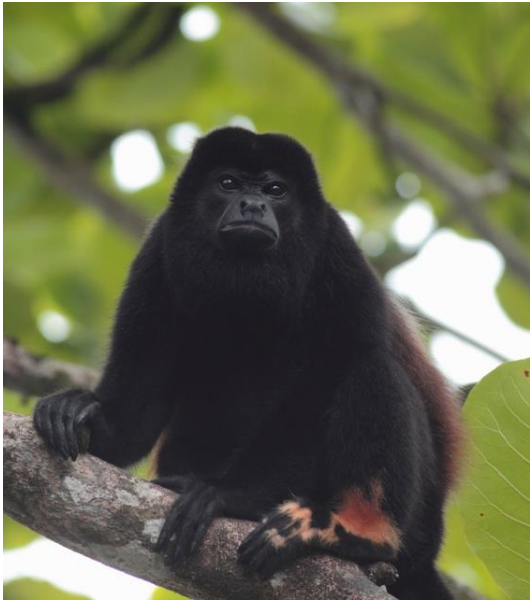
Caño Palma Biological Station owned by COTERC (Canadian Organisation for Tropical Education and Research Conservation)

Caño Palma Biological Station is on the border between Barra del Colorado Wildlife Refuge and Tortuguero National Park. Caño Palma Biological Station is surrounded by secondary forests, fragmented forests near villages and pristine primary forests where ecotourism activities are undertaken.

I am currently sampling faeces of *Ateles geoffroyi geoffroyi* (spider monkey) and *Alouatta palliata* (black-mantled howler monkey) in those forests to investigate for the gastrointestinal parasite load and the stress level of monkeys according to the type of forest they are living in.

I will be able to distinguish gastrointestinal parasite according to the intensity of human presence in the area. Stress has a very negative impact on immune system efficiency and an animal stressed is more likely to die from disease than an unstressed animal. Many species of primates are key species for the maintenance and the regeneration of forest and so, the subsistence of every species thriving in forest.

Currently, I have already collected samples from 8 different troops of spider monkey and 6 different troops of howler monkey. I have chosen to focus on those two species because the range of *Cebus capicinus* (capuchin monkey) is so extended here that the 2 months that are allocated to me for completion of this project will not allow me to sample enough faeces representative of the population of this species thriving here. In this matter, comparison between capuchin monkey and spider monkey and howler monkey will not be relevant.



*Alouatta palliata*



*Ateles geoffroyi geoffroyi* (Photo: Kaas Koenraads)

Natural corridors seem to be used very often by the primates. This implies that a troop of monkey can be found near ecotourism site one day and to be found, two days later in a fragmented forest near a village. Genetic analyses will help to compare if the same troop is more or less stressed from a habitat to one other.

Ecotourism practices, in Barra del Colorado, are performed on river (i.e tourists stay on a boat for observing monkeys, implying a relative boat traffic on the river). In Tortuguero National Park, tourists are on land and can approach monkeys relatively closer than in boat. I will be able to compare the impacts of both practices on monkey' health and physiology. I hypothesises that the ecotourism on land stress more monkeys and that monkeys submitted to tourism on land have more gastro-intestinal parasites (i.e proxy for general health status) than monkeys observed from boat. If there is a difference between the two types of tourism practices, I will be able to recommend local authorities to limit ecotourism to the practice impacting the less monkey's health.