

Project Update: February 2011

In July and August 2010, we followed a troop of spider monkeys (*Ateles geoffroyi*) that we have previously studied during the dry season in 2010 (February-April). Under the leadership of Master student Uriel Hernandez Sarabia we spent more than 190 hours of searching and recording group size, troop movement and food availability. This period of time encompassed the core of the rainy season so we did not have as many records as the dry season but we can preliminary conclude that the troop travelled faster and farther and subdivided in smaller subgroups than in the dry season. Another interesting fact is the role that fig trees (*Ficus* spp.) – they are used for food and as sleeping sites, and social interactions occurred more frequently for the spider monkey in these tree species. Fruits of Ramon tree (*Brosimum alicastrum*) were the most abundant food item during this period of time. We will compare the seasonal data with the previous dry season where we studied both species. These data will be reinforced this coming rainy season where we will work especially with the spider monkey.

In late August 2010, we started the monitoring of terrestrial species (tapir, *Tapirus bairdii* and white-lipped peccary *Tayassu pecari*) that are associated to the ephemeral ponds that constitute the only source of water for wildlife in Calakmul region and that are locally named “aguadas”. Nicolas Arias, a long-term field assistant, started visiting 15 of these ponds in September 2010 in a community forest adjacent to the Calakmul Biosphere Reserve and has been visiting them every month since. We are recording water availability and presence or absence of each species on the pond by recording tracks, hairs and other signs that indicate the species visited the pond during that specific period of time. These data will be analysed under the framework of the Patch Occupancy models (Mackenzie 2006). We want to know the specific role “aguadas” play in the survival of these species during the dry and the wet season. We have compiled data for the previous 5 years on the use of ponds by tapirs and white-lipped peccaries and preliminary results are indicating that during the dry season “aguadas” are essential elements of the landscape at least for the survival of white-lipped peccaries. In 2006, a hard drought hit the area and individuals of groups of white-lipped peccaries were seen in extremely bad physical condition; a high mortality was reported for some groups that we have radio-collared (see Reyna-Hurtado *et al.* 2009, 2010). As this is written we are getting ready for 2011 dry season that will also include the monitoring of 15 “aguadas” in the protected area (Calakmul Biosphere Reserve) in addition to the 15 that we are currently monitoring in the Nicolas communal forest; we are incorporating one student who will be taking the lead on this part until July 2011. We will combine these data with historic data from Pronatura Peninsula de Yucatan, who have completed (with our assistance and collaboration) 3 years of pond monitoring using camera-traps and have recently demonstrated also that tapirs, white-lipped peccary and black curassow are the most frequent visitors of ponds during the dry season.

Finally, Nicolas Arias our field assistant is also collecting dung samples from white-lipped peccaries and from domestic pigs in his community. We are interested also in testing if there is parasite transmission among domestic suids and wild peccaries (peccaries are the New World pigs from the family Tayassuidae) in the Calakmul region, especially in the communal forest where the frontier between domestic and wild animals is very narrow. By

January 2011 he had collected 20 samples from wild peccaries and 25 samples from domestic pigs. We are hoping to increase this number to 50 and 50 during this dry season.

Next steps

In this dry season we will focus on the monitoring of ponds and in the use of them by white-lipped peccaries and tapirs, we are collaborating with Dr. Sophie Calme who will capture and attach radio-collars to several individuals of the two species. We hope this will demonstrate the role of ponds in their movements as was preliminary suggested in my doctoral dissertation. In May 2011, we will start again the primate data collection that will be extended until the rainy season (August) when data collection from spider monkeys needs to be reinforced.

Literature Cited

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