

Mid Term Report:
Conservation and landscape genetics of lowland tapir (*Tapirus terrestris*) in a periodically flooded Amazonian forest, Brazil.



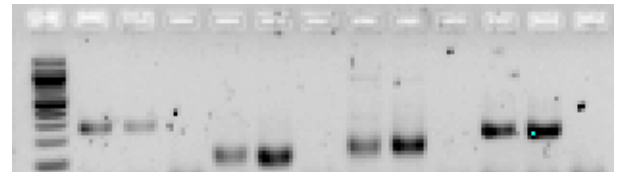
Field Activities: We have successfully established a partnership with Dr. Izeni Farias from the Federal University of Amazonas, which has allowed us to obtain sampling permits. All samples will be deposited at the tissue collection found at the University. Samples will then be loaned to the University of British Columbia | Okanagan (UBC O) for analyses.

We also successfully established a partnership with the Fundação Vitória Amazônica (FVA), which has provided us with the logistic backup needed to go to the Jaú National Park. We also trained a member of the local community to assist in sampling. In total, we have had 5 trips of 10 days sampling (June, July, August, September, October) for a total of 50 days in the field. Up until September, we collected 22 samples and we plan for another 70 days of field sampling. Our partners at FVA have continued with field surveys based on camera traps and tracks. These will be essential for building habitat models of the tapir.

Geographic localities for all samples have been obtained, and we are currently working on a GIS database for the sampling region containing information topography, vegetation, hydrography and seasonal fluctuation in water levels. FVA and WCS Brasil have kindly shared their databases with us, and we are supplementing with LANDSAT imagery.

Lab Activities: We have optimized lab procedures for extraction and amplification of tapir DNA from dung. We are also currently developing new markers

to evaluate genetic variation in natural populations (microsatellites). An undergraduate honors thesis student (Ms. Danielle Lalonde) is working full time on marker development. In total, we have successfully amplified 8 new loci, which are now being evaluated for genetic variation. These new markers join an existing suite of 6 makers, and will allow for more in-depth analysis.



Amplification of four new markers with two individuals of lowland tapir each. Blank lanes are negative controls. Photo: D. Lalonde

Educational and Outreach Activities: In the past 6 months, I have had numerous opportunities to talk about the project. While in Brazil, I was invited by the Graduate School of Biodiversity at the Universidade Federal of Amazonas and the National Institute for Amazonian Research to give lectures to their students. I also had an opportunity to lecture to a second year undergraduate course on population genetics at the UBC O. I am also teaching an Introduction to Environmental Issues at the UBC O, where I have used the work in the Amazon as an example.

Finally, I was invited by the Department of Wildlife and Natural Parks of Malaysia to attend the Tapir DNA workshop, a meeting designed for capacity building of regional scientists on non-invasive genetic techniques. At this workshop, I presented a small talk about the work being developed in the Amazon, along with all the subsidiary work.



Visiting the Wildlife Conservation Centre, Sungai Dusun, Selangor, Malaysia during the Tapir DNA workshop. Photo: R. Hajjar

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