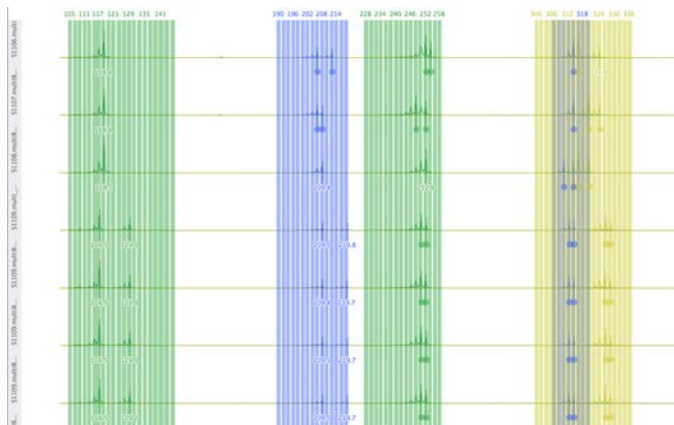


## Project Update: February 2015

In the past 6 months I had a very intensive period in the genetic lab. Once we tested our 40 newly designed genetic markers on more than a 100 macaw blood samples, we published the results (<http://link.springer.com/article/10.1007%2Fs12686-014-0317-2>). We have identified the best 30 genetic markers in the publication that are suitable for other conservation genetic studies on macaws.

Out of the 800 macaw feather samples, 500 contained good enough DNA to be genotyped with our best 13 microsatellite markers. This process took several months in the laboratory, and we were also able to identify the sex of the birds by re-designing some specific sex identification primers for molted feathers. We have constructed the full genotype database of 500 feathers and 100 blood samples from Tambopata, Peru and we just started the statistical analysis of the results.

We envision finishing the analysis and writing up the final results in the next few months and giving detailed population genetic evaluation of a wild scarlet macaw population in Peru. Using the genetic tagging technique on our genotype database we can also have a population size estimate the first time in this region, by only using genetic data. This can be an important tool for other conservation genetic projects. Applying landscape genetic techniques on the data we can also have an assessment on their genetic structure, movement, and dispersal, as well as evaluate some conservation issues in the region.



Multiplexing 5 microsatellite loci labeled with different fluorescent markers in a single genotyping run.