

## Genetics/genomics of colour variation in ball pythons.

MSc/PhD Opportunity with [Hendry/Barrett](#) at McGill University

We are starting a new project on the genetics/genomics of ball python colour variation. This species shows exceptional variation in many aspects of colour, with the photograph below showing just a tiny subset (it shows the first 13 snakes Andrew Hendry purchased). Our goal is to uncover the genomic regions, and possibly the specific genes, that shape this variation. The project is facilitated by extensive knowledge of the Mendelian genetics of the color morphs and an annotated genome for a congener – the Burmese python. The project is of interest from a basic evolutionary standpoint (imagine having genetic data from the very early stages of the radiation of domestic dogs or pigeons) and a practical standpoint (ball python breeders could genotype their hatchlings to identify whether individuals are heterozygous or homozygous, as well as the specific recessive allele in heterozygotes).



### Ball python resources:

<http://www.worldofballpythons.com/> - check out the “genetic wizard”

<https://www.morphmarket.com/us/c/reptiles/pythons/ball-pythons/index>

We hope a student will be able to start in January 2018. Application deadlines at McGill to meet this start date are August 15 for international students and October 15 for Canadian students. Well in advance of these deadlines, we suggest you send transcripts, a CV, and a statement of interest to [andrew.hendry@mcgill.ca](mailto:andrew.hendry@mcgill.ca)