



EvoLunch

Towards the understanding of sex chromosome evolution in frogs

Daniel Jeffries

University of Lausanne

Host: Beatriz Vicoso

Understanding the mechanisms by which sex chromosomes evolve has been a longstanding goal for evolutionary biologists. In contrast to many model species, including mammals, birds and flies, cold blooded vertebrates and particularly frogs show high levels of homomorphy between their sex chromosomes (X vs. Y or Z vs. W). One process which might explain this homomorphy is sex chromosome turnover, the swapping of the pair of chromosomes used for sex determination. Using RADseq of over 20 species we show that turnovers are extremely frequent in frogs and likely play an important role in maintaining sex chromosome homomorphy in these species. Further, of the 13 chromosomes present in most Ranid frogs, only a few are commonly used for sex determination, implying that they harbour genes which predispose them for the role of sex-determiner. Our ongoing work asks why frogs switch their sex chromosomes so often compared to other taxa, and by what mechanism these turnovers occur.

Wednesday, November 8, 2017 12:30pm - 01:30pm

I22 Lakeside View (I22.01)



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