



Seminar(i)

Phylogeography of two highly diverse species of neotropical wild cats

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The ocelot lineage, or *Leopardus* genera, comprises eight recognized species of endemic, neotropical, small spotted cats, including the two well-supported sister species *Leopardus pardalis* and *Leopardus wiedii*. Both species are widely distributed, ranging from southern USA (*L. pardalis*) and northern Mexico (*L. wiedii*) to northern Patagonia. However, they differ in some key traits as their body size, the activity patterns and the forest stratum they inhabit most of the time. Thus, we can assess, in a comparative framework, their phylogeographic patterns at a large scale. We sequenced 3 mitochondrial segments (ATP, ND5 and 16S) of individuals covering almost all their distribution ranges. We concatenated the 3 segments and performed genetic diversity, haplotype network and structure analysis. We also inferred the phylogenetic relationships and divergence times among populations and the demographic history of each one. We found a remarkably high diversity, mainly in ocelot. Our findings support previous geographic clusters described by Eizirik et al (1998), but we added a new cluster for *L. wiedii*, corresponding to western South America. We found two main barriers across their distribution: The Amazonas River and the Darien Straits. However, relationships among lineages differ, so we concluded that differences in ecological traits triggered differences in evolutionary pathways, but the main barriers act in similar ways on both species leading to a conserved spatial distribution of genetic diversity.

WHERE? Seminar room – SS6 (Institutes bldg. floor -1)
https://links.uv.es/cafe/pau/Diana_Buitrago

WHEN? Thursday 25/11/2021 – 12:00 h

LANGUAGE? English

