



The Biodiversity Seminar Series is pleased to announce

Belén Bukowski

from the Ornithology Division of
the Museo Argentino de Ciencias Naturales

“Bernardino Rivadavia” (MACN)

presenting the talk

“First genetic assessment of the level of endemism in the avifauna of the Central Sierras in southern South America”

Abstract:

The Andes constitute one of the main factors that have promoted diversification in the Neotropics. However, the role of other highland regions in the southern cone of South America has been barely studied. We analyzed the level of endemism in the avifauna of the Central Sierras in Córdoba, a high region in Central Argentina, to evaluate the effect of its geographic isolation from the Andes. There are 11 species with endemic subspecies in this region, all of them described based only on differences in morphology (mainly plumage color) with no genetic evidence. We performed the first genetic analyses of seven of these species using mitochondrial DNA obtained from fresh tissue and toe pad samples. Our results show that for three of these species (*Catamenia inornata*, *Phrygilus unicolor* and *Cinclodes atacamensis*) the population in the Central Sierras is clearly differentiated from those of other regions, and the first two of them also show divergence among Andean subspecies. In the remaining species we found a varying degree of differentiation, ranging from a small divergence in *Muscisaxicola rufivertex* to the presence of different haplotypes but with an apparent lack of phylogeographic structure in *Phrygilus plebejus* and *Sturnella loyca* (being the latter the only species with a continuous distribution between the Central Sierras and the Andes) to haplotype sharing in *Asthenes modesta*. While further analyses including additional markers, morphological characters and vocalizations are needed, our results show that some of the species that have disjunct distributions, with a population in the Central Sierras isolated geographically from the Andes, possess distinct genetic lineages in the Central Sierras that suggest an evolutionary isolation from other populations. These findings highlight the importance of montane regions in general, and the Central Sierras in particular, as drivers of diversification in the Neotropics.

Brief Bio:

Belén Bukowski is a Ph.D. fellow of the National Research Council of Argentina (Consejo Nacional de Investigaciones Científicas y Técnicas – CONICET) working at the Ornithology Division of the Museo Argentino de Ciencias Naturales “Bernardino Rivadavia” (MACN) under the supervision of Dario A. Lijtmaer and Pablo L. Tubaro. Her Ph.D. project consists in the study of the diversification patterns of Neotropical birds.

When: Thursday October 13th 2016 at 12:00 pm

Where: Visualization Theatre, Room 1009
Biodiversity Institute of Ontario

For scheduling and more information on the seminars, please visit:

<http://biodiversitygenomics.net/resources/seminar-series/>

