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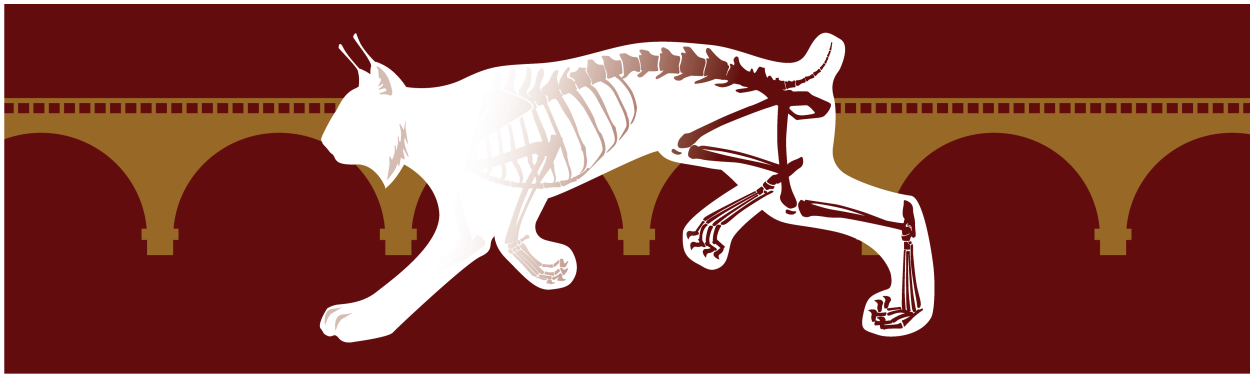

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ABSTRACT BOOK

yearlings ($\bar{x}$ = 18.3 km; p = 0.24), but juveniles and yearlings dispersed longer distances than adults ($\bar{x}$ = 3.5 km; p < 0.01). Dispersal timing and distance may have been influenced by increased access to available territories following harvest by fur trappers.

69: Bridging mammalogy, molecular markers, and outreach in Ecuador

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Ecuador has more than 400 species of mammals, and it is considered one of the most diverse countries in the World. Unfortunately, Ecuador is also a country where little scientific research is done. We are currently working on two projects, driven by the premise that education at all levels of instruction must be improved to efficiently train more researchers and contribute to the literacy, conservation, and development of the country: 1) Developing an on-line encyclopedia of Ecuadorian mammals to provide easy-to-access information about all the species present in the country. This information is targeted to a broad audience, comprising all levels of formal education (K-12 and university). This on-line encyclopedia is MammaliaWeb Ecuador, and presents information of natural history, etymology, taxonomy, distribution and high quality photographs. 2) Establishing a collections-based research program on the use of molecular markers to answer questions related to ecology and evolution of mammals and their pathogens. This program has so far yielded the discovery of cryptic species within the rodent *Chilomys instans*, and assessments of the amount of molecular data available for Ecuadorian mammals. With these two initiatives we are creating resources to help in the education and research training of Ecuadorian students.

70[E,TA]: Using stable isotopes to detect responses to environmental change in parapatric ctenomyid rodents

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Understanding how interspecific differences in a community play out in response to historical environmental changes provides a useful foundation for predicting the evolutionary and conservation outcomes of future changes in environmental conditions. Ecological studies have increasingly utilized stable isotopes to gain insights into the diets, and hence, the floristic composition that historical populations of mammals utilized. Here, we report on the use of stable isotope analyses of rodent teeth to explore the potential role that interspecific differences in response to past environmental changes have played in shaping observed differences in genetic structure between two parapatric species of ctenomyid rodents. Previous research has revealed that both abundance and genetic diversity have declined over the last 12,000 years for *C. sociabilis*, a group-living habitat specialist, but not for *C. haigi*, a solitary habitat generalist. We analyzed the carbon and oxygen stable isotope composition of molars from modern and paleontological specimens of *C. sociabilis* and *C. haigi*. Our data indicate that the floristic landscape in this region of Patagonia has changed markedly over the past 12,000 years, and as it did *C. sociabilis* and *C. haigi* shifted their diet in response to this change. Based on these findings we suggest that future studies explore potential interspecific differences in response to the same environmental variables, to understand observed temporal differences in abundance and genetic diversity in the study species.