

Project Update: December 2016

During 2016 I achieved several objectives of my 2° RSG Project “Consequences of ecological and land uses heterogeneity over multiple ecosystem services provision and biodiversity in a subtropical landscape of NW Argentina”, and communicated the results both at scientific conferences and to the local authorities, through the:

- Acquisition of camera traps and birds and medium-large mammals sampling in the watershed during summer-autumn (February-July).
- Elaboration of soil loss models for 1986 and 2006 in a geographic information system to assess patterns of soil erosion in the watershed.
- Development of the final analysis of the consequences of ecological and land uses heterogeneity over multiple ES and biodiversity in the studied watershed, currently under review in “Global Environmental Change”.
- Development of a report for local land use planning, requested by the decision makers of Secretaría del Medio Ambiente, Tucumán, Argentina, with the main findings of the study and identifications of opportunities and threats for conservation in the study area, in the context of land use planning for that particular region.
- Communications of the results in national and international conferences and meetings:
 - Poster in: Seminario de Desarrollo Profesional (PDS) sobre Gestión de servicios ecosistémicos de bosques tropicales, 25th-29th July 2016 in Liberia, Costa Rica.
 - Poster in: Binational Ecology Meeting, Puerto Iguazú, Argentina. September, 2016.
 - Oral presentation in Global Land Project's 3rd Open Science Meeting, Beijing, October 24th-27th 2016.

Below you can find the links to the publications derived of this project so far:

https://www.researchgate.net/publication/272030572_Agricultural_adjustment_population_dynamics_and_forests_redistribution_in_a_subtropical_watershed_of_NW_Argentina?ev=prf_pub

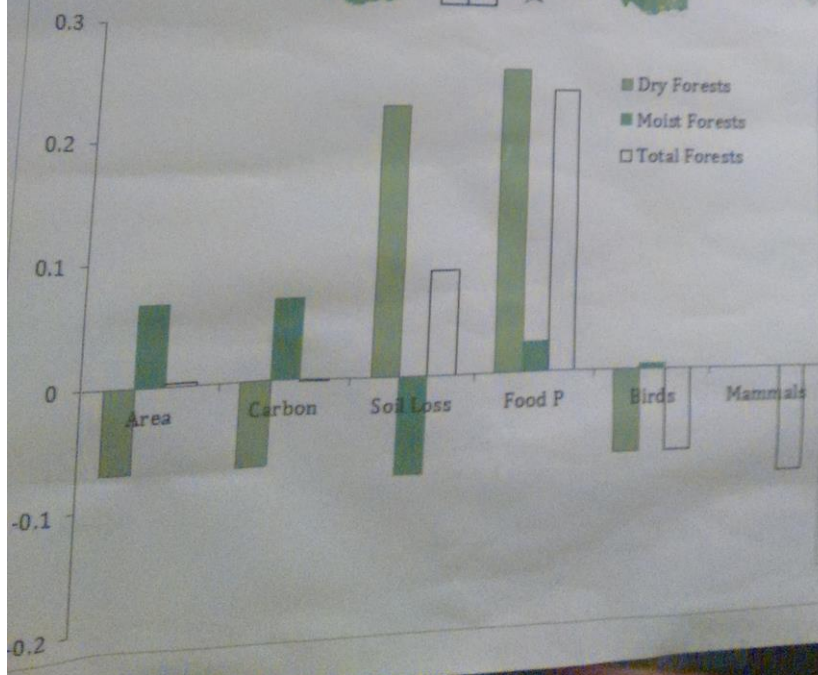
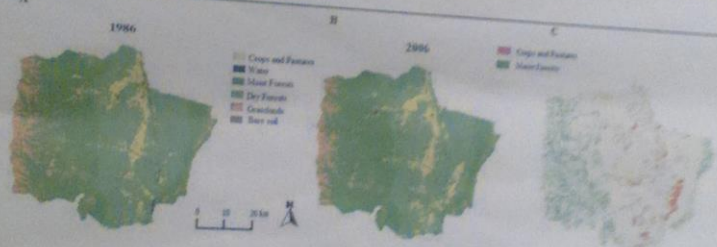
https://www.researchgate.net/publication/276848949_Redistribution_of_forest_biomass_in_an_heterogeneous_environment_of_subtropical_Andes_undergoing_agriculture_adjustment?ev=prf_pub

https://www.researchgate.net/publication/275670943_Dissimilar_responses_of_the_Gray_brocket_deer_Mazama_gouazoubira_Crab-eating_fox_Cerdocyon_thous_and_Pampas_fox_Lycalopex_gymnocercus_to_livestock_frequency_in_subtropical_forests_of_NW_Argentina?ev=prf_pub

Cambios en el uso de suelo, SE y biodiversidad: el rol de la heterogeneidad ambiental

A. Sofía Nanni
Instituto de Ecología Regional, Universidad Nacional de Tucumán, Tucumán, Argentina

- Los cambios en el uso de suelo son la principal causa de los cambios ambientales globales (Foley et al., 2005). Uno de los trade-offs más fuertes y consistentes a distintas escalas es el de producción de alimentos versus otros SE y la biodiversidad (Lambin & Meyfroidt, 2011; Phalan et al., 2011).
- Analicé las consecuencias de los cambios en el uso de suelo en 20 años sobre los siguientes SE: producción de alimentos, secuestro de C y pérdida de suelo; y diversidad de aves y mamíferos en una cuenca subtropical del NOA, con un marcado gradiente altitudinal.



Heterogeneidad ambiental: condiciona la trayectoria de CUS (deforestación, reforestación) → amenazas y oportunidades para los SE y la diversidad varían entre tipos de bosque, que a su vez presentan características ecológicas y están sometidos a prácticas de uso de suelo.

Poster in Costa Rica Seminar



Poster in Puerto Iguazú Conference



Trap-cameras collocation during field sampling in Yungas forests



Eira Barbara in Yungas forests of the study area.