IAG Webinar Central and South America

March, 3rd, 2023. Time 17 hs. UTC / 14 hs. UTC-3

Coordinators: Andrea Coronato (CADIC-CONICET, Argentina); Grace Alves (UFBA, Brazil)

INTERNATIONAL GEOMORPHOLOGY WEEK 2023

14:00–14:30

Landscape evolution in the Subtropical Andes of Argentina: how much influence does large landslides have?

Evolución del paisaje en los Andes Subtropicales: ¿qué rol tienen los grandes colapsos de laderas?

Pilar Jeanneret, IANIGLA-CONICET- Mendoza, Argentina.

Landslides are considered major contributors to landscape evolution in high mountain environments. Nevertheless, in the Subtropical Andes of Argentina are grossly underestimated due to its remoteness. In this presentation, we will introduce a landslide inventory done in the higher reaches of the San Juan Cordillera, analyzing their triggers, their timing based on cosmogenic radionuclides and their influence in the landscape evolution.

14:30–15:00

Lithologically-driven systematic river capture events in the eastern Amazon Craton

Capturas fluviais sistemáticas no Cráton Amazônico

Daniel Pfeifer, Earth Sciences Dpt., Tübingen University, Germany

Geomorphic evidence of transience is relatively common in continental interiors. Explanations for such transience generally involve an external trigger that drives surface uplift. Inspired by observations that rivers in these settings often traverse resistant lithologies in their lower reaches, we hypothesize that the exhumation of resistant units in downstream parts of a landscape drives the observed topographic transience upstream. We´ll start this talk by outlining the chain of transient effects that exposing a previously buried resistant unit leads to in synthetic landscapes. Then, we´ll leverage topographic techniques to show how the eastern Amazon Craton's present-day morphology agrees with the pathways of landscape development predicted in our models.

15:00–15:30

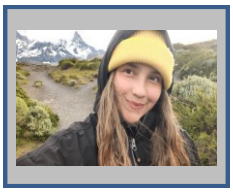
Morphohydrological changes in the Saladillo Wetland, Córdoba (Argentina), induced by anthropic interventions

Cambios morfohidrológicos en los Bañados del Saladillo, Córdoba (Argentina), inducidos por intervenciones antrópicas

María Santinelli, Universidad Nacional de Río Cuarto-CONICET, Argentina.

The Saladillo Wetland, located in the SW of Córdoba province, is a regional discharge area which receives high volumes of water and sediments. Its natural behavior has been disturbed in the last decades due to several anthropic elements as channels and water-transfers. The morphohydrologic changes and processes what caused the progressive loss of the wetland along the last 70 years will be presented.

15:30–16:00



Glacial retreat and its study through dendrochronology and climatology in Southern Chile

Retroceso glaciar y su estudio a través de la dendrocronología y climatología en el sur de Chile

Catalina Fernández García, GAIA-Universidad de Magallanes, Chile.

Several glaciers of the western side of the Cordillera de los Andes have been affected in their surface by the present scenery of variability and climatic change. Climatological and dendrochronological methods have been applied to study the glaciers behavior. The changes affected the Grey Glacier, located in Torres del Paine National Park, Chile, will be discussed in this presentation.

16:00–16:30

The karstic landscape in the Yerbal Hills, Uruguay

El paisaje kárstico de las Sierras del Yerbal, Uruguay

Leticia González Carreira, CURE-Udelar; CEUMI, Uruguay

Oral and written information about characteristics of karstic landscapes of Yerbal Hills was surveyed and systematized in order to identify geoconservation strategies and geotourism potential. Characteristic structures of exo and endokarst were revealed with dominance of funnel-type sinkholes and chasms at the surface level and caves with an important progression at the underground level. In addition, the presence of cast-type speleothems is relevant to future paleoclimatic studies.