



4-year PhD fellow position in Geomorphology/Paleoclimatology

Contrato predoctoral (4 años) para la formación de doctores en Geomorfología/Paleoclimatología

Fluvalps-Iberia Project: Multi-proxy analysis of palaeofloods in mountain regions.

Driving factors and impacts in the past, present and future.

The Fluvalps-Iberia project aims to generate from a multidisciplinary approach, that includes alluvial sedimentary archives, long reference time series of paleofloods in the Eastern Betic Range, the Swiss Alps and the Northeastern Iberian Peninsula (comparative study area). The detailed analysis of these geoarchives will enlarge the flood series to record low-frequency extreme events. Furthermore, the trends, clusters and gaps detected in the instrumental and documentary time series can be interpreted in the context of millennia and centennial climate changes and variability. In addition, the project investigates the driving factors and effects in the past, present and future. The novelty is the reconstruction of long time series generated not from lake records of small watersheds, but from high-resolution floodplain sediments from interdistributary basins, which reproduce the fluvial dynamic and environment of a medium size basin (between 250 and 600 km²), providing a regional signal that could be influenced by the global climate variability. The robustness of the flood series come from the calibration of different proxies to each other: natural archives (sedimentary, geochemical, pollen, lichen), documentary sources (descriptions of floods, historical buildings and maps) and instrumental (flow, precipitation, temperature), cataloging atmospheric synoptic types from grids and correlations with climate reference records. This approach aims to identify more precisely the cyclic pattern, mechanisms and driving forces (orbital, solar, climate, volcanic and land use) by statistical processing of the generated time series and also of paleoclimatic reference records.

Applicants / Beneficiarios: Graduate degree and preferentially with a Master's Degree in Physical Geography, Geology, Earth Sciences, Environmental Sciences, History or similar studies. The applicants must have a strong interest and previous experience in geomorphological field work and in the processing, analysis and integration of paleoenvironmental datasets from geoarchives and historical sources. Good communication skills and excellent team spirit are a prerequisite. A good standard of written and spoken English is essential as well as basic knowledge of German is welcome.

Contact / Contacto: Lothar Schulte, schulte@ub.edu

Research Group Information / Información sobre el Grupo: <http://www.palaeo.org/index.html>

Application deadline / Cierre de la presentación de solicitudes: 26/Sept/2014

Requirements / Requisitos: Admission by a doctoral program course 2014-2015 according to article 6 of resolution BOE-A-2014-9185 / Admisión en un programa de doctorado para el curso 2014-2015 de acuerdo con BOE-A-2014-9185. <http://www.boe.es/boe/dias/2014/09/08/pdfs/BOE-A-2014-9185.pdf>

General information requests / Información para solicitudes: <http://www.idi.mineco.gob.es/portal/site/MICINN/>