

Advances in Stratigraphy and Geochronology

Virtual Seminar Series of the Stratigraphy and Chronology Commission (SACCOM) of INQUA

Thursdays at 9 am USA EST, 2 pm London, 3 pm Paris, and 10 pm Beijing time.

The first talk of the weekly series is on April 22,
given by:

Konstantinos Panagiotopoulos (University of Cologne Provisional, France)

"Vegetation and climate dynamics in southeastern Europe since the Early Pleistocene: a chronostratigraphical approach"



Konstantinos Panagiotopoulos is a paleoecologist with a special interest in paleoclimate and biostratigraphy of the Mediterranean region. He is a Research Fellow of the German Research Foundation (DFG) at the University of Cologne (Germany) and his current research activities focus on the exceptional ICDP paleoarchive of Lake Ohrid in the Balkan Peninsula and the newly retrieved IODP Exp. 381 cores from the Gulf of Corinth. He is interested in developing regional biostratigraphic markers by reconstructing the timing of extinctions of relict plant species across the Mediterranean region and to identify possible links between these extinctions and major climate events over the Quaternary.

Abstract: The Mediterranean basin is characterized by exceptionally high plant species richness and rates of endemism. The three major Mediterranean peninsulas (Iberian, Italian, and Balkan) have been instrumental in sheltering plant biodiversity offering a variety of suitable habitats over successive climatic cycles. A growing body of paleoecological evidence suggests that these Quaternary refugia coincide with regional biodiversity hotspots. The response of the vegetation to orbital and millennial climate variability has been relatively well studied during the Late Pleistocene from marine and continental archives across the Mediterranean region. Pollen records from the western Mediterranean indicate the gradual extinction of taxa such as *Cathaya*, *Tsuga*, *Cedrus*, *Carya*, *Liquidambar*, *Parrotia*, and *Pterocarya*, in the course of the Early Pleistocene. Pollen records from the Italian and Balkan peninsulas suggest that these subtropical and thermophilous tree species persisted longer in tree refugia until they became extinct over the course of the Mid-Pleistocene Transition, while their last occurrence is often recorded in southern sites. In this respect, the Lake Ohrid pollen record has emerged as an important reference site for the vegetation history and timing of relict species extinctions in southwestern Balkan spanning the last 1.4Ma. While, initial palynological findings from the Gulf of Corinth, located in the southern tip of the Balkan peninsula, show that relict species persisted longer in the south. New and existing continuous Quaternary sequences from the marine and terrestrial realm allow to reconstruct the timing of extinctions across the Mediterranean region and thus contribute in the development of regional biostratigraphic markers for this period.

For more details of the full seminar series please go to the SACCOM webpage at: <https://www.inqua.org/commissions/saccom/ifg>. Please see the Zoom link below.

ZOOM LINK:

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