

1 Pre - Late Pleistocene-Holocene uplift and active tectonics at the southern margin of the Central Anatolian Plateau (Southern Turkey)

Excursion Leaders: Domenico Cosentino¹, Elsa Gliozzi¹, Paola Cipollari¹, Cengiz Yıldırım², Nazik Öğretmen², Simone Racano³, Marco Liberatore¹, and Süheyla Kanbur⁴

¹Roma Tre University, Italy; ²Istanbul Technical University, Turkey; ³GFZ-Potsdam, Germany; ⁴Süleyman Demirel University, Turkey.

Proposed Excursion Dates: 7th-12th July 2023

Draft Itinerary: Adana-Silifke-Ermenek-Antalya-Silifke-Ayaş (Elaiussa-Sebaste)-Adana

Accommodation arrangements: Hotel

Definitive cost per head: € 600

Proposer Contact Details:

Domenico Cosentino

Institution and Address: Department of Science, Roma Tre University, Largo San Leonardo Murialdo, 1 – 00146 Rome, Italy

Phone: +39 3290571014

Email: domenico.cosentino@uniroma3.it

Description

The Central Anatolian Plateau (CAP) underwent 1.5 km of rock uplift starting from the Middle Pleistocene. Participants will visit the uplifted Lower and Middle Pleistocene deep marine deposits at the southern margin of the plateau (Gülner District). The Middle Pleistocene coastal onlap at ca. 1500 to 1600 m a.s.l. points to a mid-term uplift rate of 3.21 to 3.42 mm/yr. Coeval marine deposits of the Aksu (100 m a.s.l.) and Manavgat (60 m a.s.l.) basins are evidence of strong differential uplift between the CAP southern margin and the Antalya region. A staircase morphology of marine terraces extending from the topmost part of the Gülner area down to the Mediterranean coastline is the result of rock uplift and sea level highstands for the last 500 kyr. The field trip will move toward the Mediterranean coast of southern Turkey where notches, abrasion platforms, beach rocks, river outlets, and archeological remains testify that the differential uplift in southern Anatolia is still going on. Participants will have the opportunity to observe some extensional faults affecting Holocene markers. The field trip will end in Elaiussa-Sebaste, an ancient Roman city, where the harbor and other archaeological remains show late Holocene uplift rates of ca. 1.2 mm/yr.

