## New Archaeological Evidences of Relative Sea-level Changes along the Coastlines of Apulia (Southern Italy)

Giuseppe Mastronuzzi<sup>1</sup>, Cristiano Alfonso<sup>4</sup>, Fabrizio Antonioli<sup>2</sup>, Marco Anzidei<sup>3</sup>, Rita Auriemma<sup>4\*</sup>

<sup>1</sup>Dipartimento di Scienze della Terra e Geoambientali, Università degli Studi "Aldo Moro", Bari, ITALY

<sup>2</sup>ENEA UTMEA, Rome, ITALY

<sup>3</sup>Istituto Nazionale di Geofisica e Vulcanologia, Rome, ITALY

<sup>4</sup>Dipartimento di Beni Culturali, Università del Salento, Lecce, ITALY

\*Email: rita.auriemma@unisalento.it

The coastal landscape of Southern Apulia from Monopoli to Taranto is characterised by gently sloping rocky coasts marked by deep rias and bays alternate with low cliffs. In these sheltered areas, due to the presence of fresh water springs, human settlements have been almost continuous since the Bronze age with a sea level lower than present. The presence of past small villages, landing places, structured harbours or cities are today represented along the coastline by extensive outcropping of archaeological sites both submerged or emerged; these are exposed to wave washing and generally buried by Holocene aeolian or colluvial sediments, or by soil. The position of quarries, hut bases, tombs, sewer channels, cisterns, piers, fish tanks and shipwrecks of Bronze, Classical and Middle age have been surveyed through topographic measurements to evaluate their precise elevations respect present mean sea level and corrected for the tidal range. The study of the archaeological sites of Torre San Vito (Ba), Egnatia (Br), Torre Guaceto (Br), San Cataldo (Le), Otranto (Le), Porto Cesareo (Le), Torre Ovo (Ta) and Torre Saturo (Ta) allowed us to obtain a new dataset useful to compare our data and the predicted relative sea-level curve for the last 5ka for this region.

