

## IMAGES FROM A DROWNED PREHISTORIC LANDSCAPE: THE EASTERN SIDE OF THE MALTESE ARCHIPELAGO

Lorenzo Angeletti<sup>1</sup>, Federica Foglini<sup>1</sup>, Jorge Pedro Galve<sup>4</sup>, Aaron Micallef<sup>2</sup>, Alessandro Pasuto<sup>3</sup>, Mariacristina Prampolini<sup>1</sup>, Mauro Soldati<sup>4</sup>, Marco Taviani<sup>1</sup>, Chiara Tonelli<sup>4</sup>

<sup>1</sup> CNR – Istituto di Scienze Marine, Sede di Bologna, via Gobetti 101 – 40128 Bologna

<sup>2</sup> University of Malta, Msida, MSD 2080, Malta

<sup>3</sup> CNR – IRPI Padova, Corso Stati Uniti 4 – 35127 Padova, Italy

<sup>4</sup> Dipartimento di Scienze della Terra, Università di Modena e Reggio Emilia, Largo S. Eufemia 19 – 41121 Modena, Italy

Offshore research carried out to map the seafloor on the north-eastern Maltese margin resulted in the first acquisition of multibeam bathymetric data imaging with detail the seascape. The surveys were conducted during cruises MEDCOR and DECORS in December 2009 and August 2011 respectively onboard R/V *Urania*. These missions mapped the north-eastern Maltese continental margin from off north Gozo to the southern tip of Malta. These data have been integrated by further high-resolution multibeam records acquired during cruise RICS 2010 onboard R/V *Hercules* on the shallow eastern margin between southern Gozo and north Malta. Morphobathymetric data reveals many features better interpretable as morphologies formed at the time of lowered sea-level when a substantial part of the shelf was still under subaerial (Fig. 1). These ‘drowned’ and almost intact features include karstic depressions, meandering river valleys and potential lateral-spread sliding blocks, all well-documented onshore in the Maltese archipelago. It appears that the now-drowned subaerial landscape has been only slightly affected by post-glacial modification, likely a response to relative scarcity of terrigenous deposits and semi-arid climatic conditions. Thus, Malta presents an almost intact inherited subaerial geomorphology in its submerged shelf area from present ca. sea-level down to 100 m. Malta notoriously boasts a relevant prehistoric heritage and in all likelihood traces of prehistoric human life might be present underwater. This option calls for the launch of programs aiming at detailed geoarcheological-oriented exploration of the Malta continental shelf.

