



Giada Bufarale

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Brief Summary

My research uses a combination of remote sensing, shallow seismic and sedimentological methods to characterise the surficial sedimentary structures and geomorphology in various marine depositional systems, along the Western Australian coastline. My main goal is to explain how the coasts and continental shelves evolved and matured during the past 125,000 years, when major fluctuations in global climate and sea-level occurred, and how they may change in the future.

My studies aid to understand the processes controlling a variety of depositional environments crucial for assisting in the formulation or enhancement of geological modelling for depositional settings, sequence stratigraphy and characteristics of potential or discovered reservoirs.

Education: BSc and MSc (University of Milano-Bicocca, Italy)

Research interests: Marine geology, geomorphology, sedimentology, climate change

Thesis title: Late Quaternary evolution of Western Australian continental shelf sediment systems

Supervisors: Dr Mick O'Leary, Prof. Chris Elders

Publications: Bufarale, G., O'Leary, M., Stevens, A. and Collins, L.B., 2017. Sea level controls on palaeochannel development within the Swan River estuary during the Late Pleistocene to Holocene. *CATENA*, 153, pp.131-142.

Bufarale, G., Collins, L.B., O'Leary, M.J., Stevens, A., Kordi, M., Solihuddin, T., 2016. Quaternary onset and evolution of Kimberley coral reefs (Northwest Australia) revealed by high-resolution seismic imaging. *Cont. Shelf Res.* 123, 80-88.

Bufarale, G., Collins, L.B., 2015. Stratigraphic architecture and evolution of a barrier seagrass bank in the mid-late Holocene, Shark Bay, Australia. *Mar. Geol.* 359, 1-21.

Links: <http://orcid.org/0000-0003-4966-6797> (full list: publications, conferences, awards)