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Title: Holocene coastal dune development and environmental changes in Apulia (southern Italy)

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Abstract (English): The coastal area of southern Apulia is characterised by marine deposits of Pleistocene and Holocene ages. It shows the effects of different phases of coastal morphology evolution. During the Middle and Upper Pleistocene, a number of marine terraces were shaped. In some places, they are characterised by thin beach deposits along with a dune belt and relative back dune deposits.

Two important morphogenetic phases occurred during the Holocene. The former was characterised by deposition of beach deposits placed slightly above present mean sea level, and by formation of dune belts which were radiometrically aged about 6000 years BP. This event marks the end of the rapid postglacial transgression that occurred during the Holocene Climatic Optimum. During the younger phase, dated at about 2500 years BP, deposition of aeolian sands occurred. Archaeological and morphological evidences suggest that this phase should be related to a low sea-level stand followed by a slow sea-level rise up to the present position and by humid-temperate climatic conditions.

The collected data about the Holocene dune belts occurring along the Apulian coastline suggest that main phases of dune development could be related to the effects of sea-level changes, climatic conditions, and in a subordinate way, to human activity.