

14C DATING OF HOLOCENE SEDIMENTS FROM THE SEAWARD FACE OF THE OMBRONE DELTA (TUSCANY, ITALY)

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Radiocarbon dating of 4-m sediment cores from the submerged delta of the Ombrone River (Grosseto, Italy) allows to reconstruct the depositional and environmental evolution of the holocenic sediments. Geochemical ^{14}C analyses performed both on organic and carbonate components, show a decrease in the sedimentation rates in the time. One of the eight (8) cores collected from the delta is characterized by Late Pleistocene sediments; the carbon isotopic composition of these samples revealed cold climatic periods at ~11 ky (Younger Dryas) and at ~14 ky (Older Dryas). The results provide important information about the sea-level variations of the Tyrrhenian Sea from the last glacial period onwards and the mutual influences between the fluvial and marine environments in the sedimentary evolution of the area. This work shows the radiocarbon geochemistry could be efficiently applied to a research in a coastal environment, as a part of a complete and multidisciplinary study.