ABSTRACT

The effects of the geological, tectonic and neotectonic structure and the impact of the human presence and activity on the drainage network of Pinoes river are presented here in order to determine the causes of its diversion and the implications to the shoreline. We used, analyzed and evaluated (a) geomorphological, geological, tectonic and neotectonic data of the study area, (b) historical information and archaeological findings from buried and eroded archaeological sites of the wider study area, (c) published data related to drill cores and radiocarbon dates, and (d) remote sensing datasets, as satellite and aerial photos of different capturing periods, as well as real-time kinematic differential GPS measurements for the definition of the current shoreline. It is concluded that the detected shoreline displacements and drainage diversions are the result of the combination of active tectonics and human activity during the last 100 yrs.