Geophysical Research Abstracts,
Vol. 11, EGU2009-4663, 2009
EGU General Assembly 2009

Spatio-temporal evolution of shoreline changes along the coast between sousse- Monastir (Eastearn of Tunisia)

S. Fathallah (1,,), R. Ben Amor (1,,), M. Gueddari (1,,)

(1) (safa_fathallah@yahoo.fr), Faculty of sciences of Tunis, departement of geology, Tunis, Tunisia, () magba_rim@yahoo.fr, faculty of science of Tunis, departement of geology,

Spatio-temporal evolution of shoreline Changes along the coast between Sousse-Monastir (Eastern of Tunisia).

Safa Fathallah*, Rim Ben Amor and Moncef Gueddari
Unit of Research of Geochemistry and Environmental Geology. Faculty of Science of Tunis, University of Tunis El Manar, 2092.
(*) Corresponding author: safa_fathallah@yahoo.fr

The coast of Sousse-Monastir in eastern of Tunisia, has undergone great changes, due to natural and anthropic factors.
Increasing human use, the construction of two ports and coastal urbanization (hotels and industries) has accelerated the erosion process. The coastal defense structures (breakwaters and enrockment), built to protect the most eroded zone are efficient, but eroded zones appeared in the southern part of breakwaters.
Recent and historic aerial photography was used to estimate, observe, and analyze past shoreline and bathymetric positions and trends involving shore evolution for Sousse-Monastir coast.
All of the photographs were calibrated and mosaicked by Arc Map Gis 9.1, the years used are 1925, 1962, 1988, 1996, and 2001 for shoreline change analysis and 1884 and 2001 for bathymetric changes.
The analyze of this photographs show that the zone located at the south of breakwater are mostly eroded with high speed process (2m/year). Another zone appears as eroded at the south part of Hamdoun River, with 1,5m/year erosion speed .

Keywords: Shoreline evolution, defense structures, Sousse-Monastir coast, Tunisia.