

FROM BIODIVERSITY TO GEODIVERSITY TO PROMOTE THE ROLE OF GEOCONSERVATION IN THE WESTERN COAST OF THE GULF OF THAILAND

ITALO DI GERONIMO¹, FRANCESCO GEREMIA², MAURO NEGRI³, GIOVANNI RANDAZZO², ELIO ROBBA³, ROSSANA SANFILIPPO² AND NYRAN CHAIMANEE⁴

¹ Dipartimento di Scienze Geologiche, Corso Italia 55, Università degli Studi di Catania, 95124 Catania (Italy), fax (+39)095-7195790, e-mail: digeroni@unict.it

² Dipartimento di Scienze della Terra, Salita Sperone 31, Università degli Studi di Messina, 98166 Messina (Italy), fax (+39)090-392333, e-mail: grandazzo@unime.it

³ Dipartimento di Scienze Geologiche e Geotecnologie, Piazza della Scienza 4, Università degli Studi di Milano-Bicocca, 20126 Milano (Italy), fax (+39)02-64484273, e-mail: elio.robba@unimib.it

⁴ Geological Survey Division, Department of Mineral Resources, Rama VI Road, 1040 Bangkok (Thailand)

The analysis of the Holocene evolution and present tropical coastal environments along the western coast of the Gulf of Thailand, carried out in the last years, has shown as these natural environments are rich in biodiversity, but also in geodiversity.

In fact, the coast between Chao Phraya river and Hua Hin beach, includes a large variety of attractive coastal landscapes and resources (geosites) as sandy beaches, dunes and spits, deltaic landforms, tidal mudflats, tropical swamps, former and ancient mangrove areas; all transitional and dynamic natural environments between aquatic and terrestrial systems, where continental and marine processes converge and interact carrying out to original physical, chemical and biological characteristics, fundamental for the increasing of biodiversity.

Throughout the last years, some of these areas have been threatened by a growing human impact and reclaimed for intensive industrial activities and shrimp farms, but many of these are still preserved and in good-health.

Knowledge and assessment of these transitional environments should be documented in a systematic way to build up a sustainable basis for coastal zone management, taking into account the concept of geodiversity, considered as an essential part of protection of our natural and cultural heritage.

The variety and assortment of coastal landscapes and resources (geodiversity) in the site area is deserving of the highest geoscientific knowledge, because it is a particularly good representative example of a biogeographical region, characterized by a tropical savanna climate with a longer dry season and a prominent but not extraordinary wet season.

The aim of this paper is that to promote the role of geoconservation (geosite conservation) amongst local decision makers for a rationale coastal resources use and a better tourism development.

Starting from the importance to safeguard the biodiversity along the western coast of the Gulf of Thailand, it is also necessary to identify and assess the geosites, examining the available information and comparing these with examples of management and exploitation actions in Europe.