



Cnr - Istituto per la BioEconomia



Tenth

Symposium

International

MONITORING OF MEDITERRANEAN COASTAL AREAS: problems and measurement techniques

June 11-12-13, 2024 - Natural History Museum of the Mediterranean, Livorno - Italy

Tuesday June 11

- 9.00 Symposium Registration
 - Presentation and Addresses by Authorities and by Symposiarch
 - Session *Flora and Fauna of coastal ecosystems*

12.40 Break

14.30 Resumption of previous session

17.10 Conclusion of the first day

17.20 - 19.30 Guided tour of Port area

Wednesday June 12

- 9.00 Opening of the Secretariat
 - Session *Geography, Tourism and Landscape of the coastal areas*

12.40 Break

14.30 - Session *Underwater and Coastal Cultural Heritage*

17.20 Conclusion of the second day

17.30 - 20.00 Guided Boat Tour of "Fossi Medicei"

Thursday June 13

- 9.00 Opening of the Secretariat
 - Session *Morphology and evolution of coastlines and seabeds*

12.40 Break

14.30 - Session *Coastal and Offshore Engineering*

18.00 Conclusion of Symposium

18.20 - 19.20 Guided tour to Museum

20.00 Prize-giving ceremony and Social event



Provincia di Livorno

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COMUNE DI LIVORNO



Università
di Catania



10th International Symposium
“Monitoring of Mediterranean Coastal Areas:
problems and measurement techniques”
Livorno (Italy) June 11-13, 2024

Museum of Mediterranean Natural History - Via Roma 234, Livorno

PROGRAMME

First Day – Tuesday, June 11, 2024

- 9.00 Registration**
- 10.00 Opening Ceremony – Presentation and Addresses by Authorities and Symposiarch**
- 10.40 *Coffee break; Posters installation*
- 11.00 Introduction by Symposiarch**, Marcantonio Catelani, University of Florence
- 11.10 Keynote: Paolo Sottocorona**, Meteo La7
Effects of climate change on the Mediterranean Sea
- 11.30 Session Flora and Fauna of coastal ecosystems: protection, management, monitoring, Part I**
chairperson Davide Travaglini, University of Florence
- 11.40 *Development of a framework to modelling stand evapotranspiration at a local scale in a coastal Mediterranean forest under climate change*
D. Lombardi, K. Micalizzi, M. Vitale
- 12.00 *Composition shifts in a declining holm oak forest: seasonal inventories and biogenic volatile compound emissions over four years*
F. Alderotti, A. Gori, M. Pollastrini, M. Centritto, F. Ferrini, D. Pasquini, C. Brunetti
- 12.20 *A methodological approach to assessing the conservation status of coastal habitats: the case study of Calabria (Southern Italy).*
A. Morabito, C. Musarella, Laface, G. Caruso, G. Spampinato
- 12.40 Lunch break**
- 14.00-14.30 Posters viewing**
- 14.30 Session Flora and Fauna of coastal ecosystems: protection, management, monitoring, Part II**
chairperson Sandro Lanfranco, University of Malta
- 14.30 *Flora and vegetation of coastal sands and salt marshes in Croatia – Case study from Northern Dalmatia (Croatia)*
A. Alegro S. Bogdanović, V. Šegota
- 14.50 *Mapping Yucca gloriosa in coastal dunes: Evaluating the cost and time efficiency of photointerpretation, machine learning and field detection approaches*
E. Cini, F. Marzialelli, M. Paterni, A. Berton, A. T. R. Acosta, D. Ciccarelli
- 15.10 *Controlling the expansion of invasive Halimeda incrassata in the Cabrera natural park using marine robots and photo-mosaics*
F. J. Bonin Font, B. M. Nordfeldt Fiol, C. Muntaner Gonzalez, T. Martorell Torres
- 15.30 *From species ecology to ecosystem restoration – a modelling approach to successfully restore Posidonia oceanica meadows*
V. Baldi, A. Bellino, D. Baldantoni
- 15.50 *Coffee break and Posters viewing*
- 16.10 *Monitoring and assessment of the ecological status of coralligenous cliffs by a standardized protocol*
P. Gennaro, L. Piazzini, E. Cecchi, C. Morri, C. N. Bianchi, M. Montefalcone
- 16.30 *Monitoring of protected marine invertebrates in Columbretes islands marine reserve, using random path transects*
F. Maresca, A. Muñoz, I. Baena, E. Real, N. R. De La Ballina, S. Díez, S. Mallol, D. Díaz
- 16.50 *Genetic Sleuths of the Sea: eDNA Metabarcoding Unleashes a New Era for Mediterranean Marine Protected Areas Monitoring*
G. Capurso, B. Carroll, K. A. Stewart
- 17.10 Closing of first workday**
- 17.20 – 19.30 Event: Guided tour to Port Area**

Second Day – Wednesday June 12, 2024

9.00 Opening of Secretary's Office

9.10 Session *Geography, Tourism and Landscape of the coastal areas. Enhancement, safeguarding and dynamics of the territory*, chairperson Donatella Privitera, University of Catania

9.20 *Living in a fragile and dynamic territory: the contribution of environmental and geoarchaeological mediation to the appropriation of new ways of living in coastal areas*
C. Provendier

9.40 *Monitoring Transformations of Urban and Natural Landscape in Mediterranean Cities by Promoting Landscape Setting Archetypes*
A. Sopina, B. Bojanić Obad Šćitaroci

10.00 *Quantifying and mapping the human footprint across Earth's coastal areas*
N. Levin, S. Kark

10.20 *Sea level rise projections: risk and impacts on populations in the Mediterranean Basin*
C. Falaguasta, F. Martellozzo, F. Randelli

10.40 *Coffee break and Posters viewing*

11.00 *Unravelling the offshore wind energy tourism: first evidence and perceptions in France*
Y. Baulaz, R. Fofack-Garcia

11.20 *"Lighthouse families" in Greece: their contribution to forming and preserving coastal cultural identities*
P. Moira, D. Mylonopoulos, P. Kakaroucha

11.40 *Agricultural terraced systems of the Tuscan Archipelago: typological analysis and recovery possibilities of drystone walls*
P. Armanasco, L. Conti, D. Liberto, S. Camiciottoli, E. Palchetti, M. Moretta, A. Masoni

12.00 *Visibility analysis in wetland protection processes*
V. Martelliano, N. Denaro

12.20 *Heritage species: An inadequate or misleading concept for the protection of Mediterranean ecosystems?*
C.-F. Boudouresque, P. Astruch, A. Blanfuné, T. Changeux, M. Perret-Boudouresque, T. Thibaut

12.40 Lunch break

14.00-14.30 Posters viewing

14.30 Session *Underwater and Coastal Cultural Heritage*, chairperson Marinella Pasquinucci, University of Pisa

14.40 *Coastal archaeological evidence in the Bay of Naples: vulnerability and directions for conservation and enhancement*
C. Aveta

15.00 *Coastal Cultural Landscapes: Analysis and Visualization of Data*
L. Repola, V. Morra, J. Leidwanger, E. Greene, F. Sgroi

15.20 *Archaeological markers below the lagoon waters*
E. Costa, C. Lucarini

15.40 *The exploration of the coasts of Perinthos: what does the multibeam bathymetry survey tell us?*
B. Karadoller, C. Imren, Z. K. Erdem

16.00 *Coffee break and Posters viewing*

16.20 *The quarries in the coastal municipalities of western Liguria: reflections on landscape protection with a view to their recovery*
L. Comino, S. G. Lanza

16.40 *The Latium coast from Ostia to Circeo: settlement dynamics in a peculiar context*
A. M. Jaia, L. Ebanista

17.00 *Diagnostics and Conservation of coastal Archeological sites: the case study of the Roman Villa of Casignana, Reggio Calabria (Italy)*
M. A. Zicarelli, D. Barca, M. F. La Russa, A. Macchia, L. Randazzo, M. Ricca, S. A. Ruffolo

17.20 Closing of second workday

17.30 – 20.00 **Event: Guided boat tour to "Fossi Medicei" of Livorno**

Third Day Thursday June 13, 2024

9.00 Opening of Secretary's Office

9.10 Session *Morphology and evolution of coastlines and seabeds*, chairperson Giovanni Sarti, University of Pisa

9.20 *Wave influence in short- to long-term river delta morphodynamics: A Mediterranean and Black Sea perspective*
E. Anthony, F. Zainescu, F. Sabatier

9.40 *An in situ wind/coastal-going platform network for monitoring the sea-beach interactions under different climate conditions*

S. Lanza, G. Randazzo, R. Musumeci, L. Cavallaro

10.00 *Monitoring beach erosion along the Central Adriatic coast: the case study of Molise Region*

G. Di Paola, G. Dilauro, C. Caporizzo, C. Roszkopf

10.20 *Multiple insights into coastal processes obtained from a year of flux measurements in the eastern Levantine Basin*

T. Katz, G. Sisma-Ventura, O. Bialik, N. Vogt-Vincent, J. Silverman, O. Crouvi

10.40 *Coffee break and Posters viewing*

11.00 *Uncrewed aerial vehicles: an investigation of the parameter influences for coastal monitoring*

M. Luppichini, M. Paterni, M. Bini

11.20 *Coastal processes and coastline evolution on the Vrgada Island (Croatia) - getting the whole picture*

K. Pikelj, N. Furčić, F. Marković

11.40 *Assessing beaches' attendance and practices in a large coastal city. A case study in Marseille (France)*

S. Robert, M. Tremelo

12.00 *Morphodynamics of the shallow seabed during the course of a storm: high-resolution direct observations*

N. Rozen, T. Katz, Lensky, O. Crouvi, O. Katz, A. Mushkin, A. Agnon

12.20 *Shoreline detection by applying semiautomatic algorithms for hyperspectral and multispectral satellite imagery on the beaches of the gulf of Oristano (Sardinia, Italy)*

S. Terracciano, J. Montes Pérez, R. Brunetta, P. Cabrita, E. Duo, S. Fabbri, P. Ciavola, C. Armaroli

12.40 Lunch break

14.00-14.30 Posters viewing

14.30 **Session *Coastal and Offshore Engineering: energy production and transport, port and offshore structures, water quality, measurements and monitoring, data processing and services, digital twins, economic-environmental assessment, regulatory context***, chairperson Lorenzo Cappietti, University of Florence

14.40 *AI and Machine Learning to extend meteo-marine station observations into the future*

J. Azzopardi

15.00 *Wave energy assessment in the Adriatic sea using SWAN Model*

S. Gedela, C. Invernizzi, C. Bisci, P. Maponi, F. Spagnoli, Y. Yuksel, F. Islek

15.20 *Modeling the high-impact low-probability oil spills in the Mediterranean*

S. Liubartseva, G. Coppini, M. Hoxhaj, R. Lecci

15.40 *Renewable energy and Sardinian coastal areas: market and environmental issues*

M. Marini, A. Sulis

16.00 *Coffee break and Posters viewing*

16.20 *μ -Nautilus, an autonomous lightweight profiler with depth control and configurable sampling time*

I. P. Morales-Aragón, F. Soto-Valles, R. Torres-Sánchez, J. Gilabert

16.40 *EMODNet Data Ingestion a key resource for the marine science community*

L. Pecci, P. Diviaco, B. Mihai

17.00 *Monitoring the phenomenon of seawater intrusion in the estuary area of the river Magra and in the alluvial plain of the lower Val di Magra (SP)*

M. Sabattini, F. Ronchetti, D. Arosio, G. Brozzo, A. Panzani

17.20 *The sea level rise of the next hundred years. The case study of Miami as a paradigmatic example for Mediterranean coasts*

C. Simoncini

17.40 *Towards a Guide for Building Digital Twins of Port Infrastructure*

C. N. Tsaimou, V. K. Tsoukala

18.00 Closing of Symposium

18.20 – 19.20 **Event: Guided tour to Museum of Mediterranean Natural History**

20.00 Award Ceremony and Social event

Poster Presentations

Session *Flora and Fauna of coastal ecosystems: protection, management, monitoring*

Checklist of amphipods of Italian seas: baseline for monitoring biodiversity and bioindicators

A. Badalucco, Auriemma, A. Bonifazi, E. De Matthaeis, C. Di Camillo, V. Esposito, T. Krapp, Latella, L. Lattanzi, M. Lezzi, M. Lionello, E. Mancini, A. Marchini, V. Marusso, E. Prato, F. Scapini, M. Scipione, M. Targusi, F. Tiralongo, B. Trabucco, A. Ugolini, S. Lo Brutto

Mapping of Benthic Habitats of Algerian Coast (South-Western Mediterranean)

L. Bahbah, B. Bensari, K. Chabane, H. Seridi, S. Mariani, E. Ballesteros

The ex-situ adaptative power of the blue crab Callinectes sapidus Rathbun, 1896.

F. Becir, A. Leulmi, M. Nessaiia, S. Bouanani

Study of marine species that inhabit the coastal strip of our seas

R. Bedini, M. Bedini

Monitoring and assessment of the environmental quality of transitional waters in Sicily (Italy)

G. Bellissimo, F. Galfo, P. Balistreri, B. Sirchia

The use of stable isotopes in the study of the avifauna of the Galite archipelago in Tunisia

H. Ben Jemaa, S. Nouria, F. Fourel, I. Bentaleb

Shoreline dynamics and breeding coastal birds in the Marano and Grado barrier islands

A. Bezzi, S. Sponza, G. Casagrande, S. Spadotto, S. Fracaros D. Martinucci, S. Pillon, G. Fontolan

Isolation of macromolecular protein r-phycoerythrin from red algae

K. Bougadra

Investigating holm oak forest dieback by multilevel approaches: physiological measurements, dendrochronology and remote sensing

C. Brunetti, F. Alderotti, A. Gori, F. Ferrini, F. Sillo, R. Balestrini, R. Magno, L. Brillì, P. Cherubini, M. M. Pollastrini, F. Bussotti, M. Centritto

Monitoring gelatinous zooplankton and its dynamics in the east Adriatic (2018-2023)

A. Budiša, N. Iveša, P. Burić, G. Millotti, M. Buršić, E. Pustijanac, A. Žunec, I. Kovačić, M. Štifić, N. Milovan, P. Paliaga

Monitoring the monk seal Monachus monachus in the Central Mediterranean

L. Bundone, A. Panou, G. Hernandez-Milian, G. Pojana

Ecological Zonation and Abiotic Variability in an enclosed nature park: the case of the Salini saltworks in Malta

M. Busuttil R. Caruana Montaldo, L. Ehmcke, E. Bartl, F. Giacalone, A. Giuffrida, S. Hilke, G. Lembo, A. Li Vorsi, S. Murphy, E. Ponte, N. Szklarczyk, K. Debono, B. Gambin, S. Lanfranco

Using multispectral UAV imagery and ground truthing to assess the success of vegetation reinforcement in a coastal area – the case of Inwadar National Park, Malta

L. Camilleri, S. Lanfranco

Environmental issues affecting loggerhead turtles Caretta caretta: a study on the presence of inorganic pollutants in organs, tissues and eggs

S. Canzanella, A. Pepe, D. Iaccarino, D. Ricupero, L. Curcio, Esposito G. Picazio, F. Maffucci, F. Di Nocera, G. Lucifora, P. Gallo, M. Esposito

Monitoring Phenological Traits of a Coastal Mediterranean Maquis Area Through Automated Systems

C. Cesaraccio, A. Piga, A. Ventura, A. Arca, P. Duce

Estimation of gross and net carbon fluxes in a coastal area undergone to clearcuts

M. Chiesi, L. Bottai, L. Fibbi, M. Pieri, B. Rapi, F. Maselli

Carbon and nitrogen stable isotope analyses of emergent plants in a Mediterranean Coastal Lagoon (Cabras Lagoon, Italy)

S. Como, A. Scartazza, V. Lazzeri, D. Cicala, P. Magni

The assessment of non indigenous species within the marine protected area of “Secche della Meloria”: five years of monitoring using the Alex index.

A. De Biasi, L. Piazzini, L. Pacciardi, M. Pertusati, A. Porchera, C. Pretti

Comparing the genetic structure of two Posidonia oceanica meadows located in protected or unprotected areas of the Italian Southern Adriatic Sea

D. De Paola, G. Chimienti B. Degryse, F. Bagnoli, G. Vendramin, M. De Virgilio

Analysis of the amphipod syntaxon on hard bottoms anti-trawling structures

M. De Simone, A. Di Cosmo, M. Nonnis, G. Franceschini, B. Catalano, P. Tomassetti, L. Ciaralli, E. Monfardini, B. Trabucco

Monitoring Toumeyella parvicornis (Cockerell) (Hemiptera: Coccidae) infestation on coastal and urban Pinus pinea L. stands through integration of remote sensing and in situ data

V. Falanga, S. Francini, F. Parisi, G. Chirici, M. Ottaviano, M. Marchetti

Changes in land use and loss of ecosystem services in the Andalusian Coast (Spain)

A. Fernández Enríquez, M. De Andrés García, García Onetti, M. Arcila Garrido, Chica Ruiz

Stability of epibiotic communities on the metal surfaces of shallow-water wrecks in the Maltese islands

P. Galatolo, P. Schembri

*TurtleTosca: drone monitoring of the *Caretta caretta* nests in the Migliarino San Rossore Massaciuccoli Park*

Y. Galletti, A. Dini, Logli, C. Mancusi, S. Merlino, Paterni, M. Zuffi

*Effects of artificial sweeteners on biological processes of *Aurelia coerulea* polyps*

C. Gregorin, M. Feliziani, M. Vit, S. Susmel, L. Musco, Annibaldi, S. Puce

*Diet composition and parasite nematodes relationship in *Trachurus trachurus* of the Gulf of Bejaia*

K. Ichalal, A. Chikhoun F. Ammaoui, Z. Ramdan

*Declines in local Mediterranean temperate seagrasses in parallel to the expansion of the tropical invasive *Halophila stipulacea* in Limassol, Cyprus - confirmation of predicted trends*

M. Kaminer, H. Manh Nguyen, G. Winters

Interactions between Cetaceans and fisheries in the Algerian coast, challenges and outlook

K. Larbi Doukara

*Cryptic diversity of the complex widespread scorched mussel *Brachidontes pharaonis-variabilis**

S. Lo Brutto, T. Curatolo, M. Naser

The Amphipoda and Cumacea assemblage response to LNG terminal installation in Adriatic Sea (Mediterranean Sea)

V. Marusso, B. Trabucco

Protected coastal areas boost survival and conservation of endangered mediterranean ospreys

F. Monti, Montillo, O. Duriez, G. Sammuri, A. Sforzi

*Highly diverse molluscan assemblages of *Posidonia oceanica* meadows in the Gulf of Gabes (Central Mediterranean):*

Seasonal dynamics and environmental drivers

N. Mosbahi, R. Mejri, J. Dauvin

Contamination and Ecological Quality Status of the Southern Tunisian coasts

N. Mosbahi, R. Mejri, J. Dauvin

Utilize of bioindicator organisms for the detection of microplastics in marine coastal areas

M. Orsini

PAH Biomonitoring in Marine Coastal Environments

E. Picariello, D. Baldantoni A. Bellino, M. Nitopi, F. De Nicola

Mapping submerged vegetation and water quality using multi- and hyperspectral imagery of Oristano Gulf (Italy)

M. Pinardi, S. Mangano A. Pellegrino, A. Fabbretto, C. Giardino, A. Taramelli, A. Satta, M. Bresciani

Empowering student engagement and environmental understanding: the Coastal Health Monitoring Scheme (CHMS)

S. Pinya Fernandez, S. Guasch-Martínez, J. Gil-Perelló, L. Brunet-Coll, A. Borrás, G. Mateu-Vicens, Ferriol, Gil, S. Tejada, A. Sureda

*Objective quantitative parameters to evaluate reproductive activity in *Engraulis encrasicolus* L.*

A. Rahmani, M. Iguer-Ouada

The role of rebreather divers in the study of a marine deep-water cave ecosystem

V. Resaikos, C. Jimenez

Temporal and spatial variability in the isotopic composition of sea urchins along Portuguese coast

A. C. S. Rocha, M. Ressurreição, Baeta, Veríssimo, Camarão, S. Fernández-Boo, Pombo, S. Lourenço, A. Gomes, Moreira Santos, Jacinto, D. Mateus, F. Maresca, C. Mourato, E. Serrão, T. Verdelhos

**Posidonia oceanica* biomarkers as a strategy for mediterranean environmental assessment*

C. A. Sáez, F. Blanco-Murillo J. Sánchez-Lizaso

Metal pollution monitoring and assessment in the western Mediterranean coastal ecosystems through an integrated study

J. Santos-Echeandía, P. Bernárdez, V. León, J. Campillo

An open-air school laboratory for experiencing plant diversity in a Mediterranean coastal city

A. Scartazza, F. Bretzel, V. Lazzeri, L. Marchetti, A. Martelli, R. Panti, L. Pellegrino, E. Talà, G. Rossini

Enhancing blue carbon uptake by seagrass restoration in a global hotspot of climate change

L. Shalev, O. Ucko, S. Malamud, J. Belmaker, G. Winters

How to protect and conserve the Mediterranean Slipper Lobster

E. Spanier

The Mediterranean Slipper Lobster - The Known and the Concealed in the Ecology of a Threatened Species

E. Spanier

Effects of Abiotic (Salinity) and Biotic (Ectoparasite) Stressors on Coris julis (Linnaeus, 1758) in Ibiza, Balearic Islands: A Biomarker Analysis

A. Sureda, A. Cohen-Sánchez, G. Mateu-Vicens, P. Ferriol, L. Gil, A. Box, S. Pinya, S. Tejada

Fish Immune and Oxidative Stress Reaction to Emerging Parasite in the Balearic Islands

S. Tejada, A. Cohen-Sánchez, J. Valencia, A. Box, L. Gil, S. Pinya, A. Sureda

Monitoring EU habitat types of coastal dune systems in some critical sites in Southern Italy

V. Tomaselli, F. Carruggio, L. Beccarisi, E. Genduso, M. Semeraro, F. Todaro, A. Mei, A. Berton, G. Fontinovo, A. Ragazzo, F. Rana, M. Adamo

Identification of fatty acid profile and lipid biomarkers in two Holothuroidea species from different locations along the Italian coast

N. Tonachella

Development of methodology for the Ecological Quality Status assessment in the Croatian coastal waters using macrozoobenthos according to the European Union

A. Travizi

Flora and habitats on Algier's Coastline (Algeria): state of knowledge and conservation issues

N. Yahi, S. Ahmed-Zaid, I. Kafi, N. Souyad

Session Geography, Tourism and Landscape of the coastal areas. Enhancement, safeguarding and dynamics of the territory.

Evaluating the influence of sustainable tourism (3S) on the coastal area within the framework of ICZM through the lens of sustainable development in the coastal region of North Cyprus

T. Arefipour

The Marano Lagunare's Riva San Vito. A Boulevard Between Land and Water.

T. Bisiani, A. Venudo

Tourism territories 4.0. New opportunities for tourism revitalization of expanded coastal territories

N. V. Canessa

The European Charter for Sustainable Tourism (ECST) as a model of best practices and participatory governance. The case study of the Asinara National Park

D. Carboni, S. Malvica, M. G. Masia, N. Pinna

Gaiola Underwater Park: small-scale fisheries monitoring and Mitigation of illegal fishing within the FEAMP Project

G. Di Pace, M. Simeone, F. Fabrizi, A. Tommasi, M. Defina

From a lovely coast to a designated bathing beach: steps, challenges, legislative framework

M.A. Efstratiou

Economic valuation of coastal blue carbon stock's dynamics. A study in NW Spain using land cover transitions and InVEST

D. Hervés-Pardavila, M. L Loureiro

Coastal landscape and "disappearing" territories

A. Ivona, D. Privitera

Vulnerability analyses of coastal tourism caused by sea level rise due to climate change in Kuşadası, Türkiye

T. Kuleli, Ş. Bayazit

Tourism territorial resilience in Galicia (Spain). Experiences and potentialities of the museums of the sea

L. Lopez, M^a Á. Piñeiro Antelo

Opportunities to restore and protect Coastal ecosystems with enhanced interdisciplinary management. The Mediterranean Model. A progress review of LIFE PRIMED (LIFE17 NAT/GR/000511) project

M. Makaronidou, V. E. Cambria, E. Korakaki, C. Georgiadis, N. Petrou

Combating coastal erosion in tourist territory: the case of Sant'Alessio Siculo (province of Messina)

S. Malvica, G. Messina, E. Nicosia, C. M. Porto, M. Spanò

Fishing tourism in Tuscany: current situation and future developments

A. Massaro, M. Sartini, F. De Carlo, I. Rossetti

Sustainable development in vulnerable coastal zones: the case of Abruzzo

C. Montaldi, G. Di Pietro, C. Cattani, F. Zullo

Coastal roads Atlas. Reshaping daily infrastructures for coastline adaptation

C. Nifosi, F. De Angelis

Hub for water and coastal managers: the experience of DELTAMED

E. Novello

Ecosystem services as support tool of urban planning activities in coastal areas

A. Palermo, L. Chieffallo, N. Rispoli

Impact of Urbanization on Mediterranean Forest Ecosystems: A Case Study of the Suburban Forest of Mont of Bouzareah on the Algiers Coast (Algeria).

O. Zanndouche, A. Derridj, F. Krouchi

Session Underwater and Coastal Cultural Heritage

Strategies for the protection of archaeological and environmental heritage in a coastal environment. An experimental widespread museum model for the Northern Lagoon of Venice

R. Albiero

The water supply system of Lake Garda lemon houses: A close connection between irrigation and the landscape

S. Barontini, B. Bettoni, H. Mohammad, M. Peli, A. Cazzani

Navigation and Mediterranean Coastal Meteorology, in the Ancient World

F. Benincasa, M. De Vincenzi, G. Fasano

The historic lighthouses of the Italian Coasts

F. Benincasa, M. De Vincenzi, G. Fasano

Beyond regional Maritime Cultural Heritage boundaries: the Italian Maritime Spatial Planning process

F. Carella, M. Roversi Monaco, F. Musco

When geology becomes cultural wealth: Praia a Mare, town of caves

G. D'Ecclesiis, A. Pellettieri

The building materials of the Lorenese forts of the Tuscan coast

F. Fratini, S. Rescic

Cultural Heritage of Amalfi Coast

B. G. Marino, E. Schettino

Session Morphology and evolution of coastlines and seabeds

Coastal Morphological Changes Using Video Monitoring System and Xbeach Model

Y. Assaf, M. Bruno, L. Damiani, A. Saponieri

Human activity and recent changes in Baia Flaminia beach, northern Marche region (Central Italy)

D. Baioni, O. Nesci, V. Vandelli

Climate change, pollution and erosion of the coastal strip

R. Bedini, M. Bedini,

Pollution par les microplastiques du littoral de Annaba extrême nord-est Algérien : abondance, distribution, composition et risque

B. Belabed

One-year evolution of a mediterranean sandy beach with Posidonia Oceanica Banquettes (Arborea, Sardinia, Italy)

P. Cabrita, J. Montes Pérez, R. Brunetta, S. Terracciano, E. Duo, P. Ciavola, S. Fabbri, C. Armaroli

Riccione's study case: experimentation of innovative artificial reef for coastal defense and increase marine biodiversity

D. Cleo, R. Santi

Identifying cliffs morphodynamics: a 3D GIS approach for a better hazard management. Examples in Croatia

O. Cohen, K. Pikelj, E. Blaise

Seasonal changes in grain size of sediments along cliff-dominated beaches, Israel's Mediterranean Coast

O. Crouvi, R. Shemesh, O. Katz, A. Mushkin, N. Morag, N. Lensky

Impacts of harbour works on the Italian coasts: a methodological approach to measure areas affected by sea-land changes

F. D'Ascola, M. Cassese, P. La Valle, D. Paganelli, R. Proietti

Machine Learning for Sustainable Land Management: A Global Soil Salinization Study

M. Dalle Vaglie

Environmental and density-dependent effects on megabenthic bivalves diversity in the subtidal area of the Gulf of Cadiz

M. Delgado, S. Román, L. Silva, A. Rodríguez-Rúa, S. Llorens

Multi-technical approach for coastal changes reconstruction in an urbanized context

G. Fasciglione, G. Benassai, G. Mattei, G. Pappone, F. Peluso, P. C. Aucelli,

Evaluating the impact of sand fences on foredune recovery in Sant Pere Pescador Beach (Costa Brava, Spain)

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*Citizen Science and Machine Learning forecasting *Ostreopsis cf. ovata* blooms*

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L. Sinapi, A. Troccoli, A. Cardillo, M. Conti, S. Dastoli, R. Proietti, M. Zucchetta, L. Nicoletti

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