

INDEX OF PAPERS

<i>Preface</i>	XIII
<i>Organizing Authorities</i>	XIV
<i>Scientific Committee</i>	XV
<i>Presentation of Proceedings</i>	XVII
<i>Introduction by Sympoarch</i>	XIX

Session: Morphology and evolution of coastlines and seabeds	1
Chairperson: G. Sarti	
E. Anthony	5
<i>Impacted fluvial and coastal sediment connectivity in the Mediterranean: a brief review and implications in the context of global environmental change</i>	
A. del C. Arriola Velásquez, A. Tejera, I. Alonso, W. Geibert, I. Stimac, F. Cámara, N. Miquel-Armengol, H. Alonso, J. G. Rubiano, P. Martel	16
<i>Beach sediment dynamics from natural radionuclides point of view</i>	
F. D'Ascola, M. L. Cassese, N. Lugerì, V. Pesarino, A. Salmeri	27
<i>The ISPRA geodatabase for monitoring and analysis of the state of the Italian coasts: an example of its application to the Rocchette - Castiglione della Pescaia coast line</i>	
I. López, A. J. Tenza-Abril, L. Aragonés, J. I. Pagán	38
<i>Evolution of the surface roughness of a coarse sand after a beach nourishment</i>	
M. Luppichini, M. Bini, A. Berton, N. Casarosa, S. Merlino, M. Paterni	47
<i>A method based on beach profile analysis for shoreline identification</i>	
J. I. Pagán, L. Bañón; P. Ortíz, L. Aragonés, I. López	61
<i>Use of RPAS to monitor coastal dune systems and beach erosion in Guardamar Del Segura, Spain</i>	
A. Picciolo, R. Auriemma, S. Fai, L. Coluccia, A. Antonazzo, C. Buccolieri	70
<i>Use of mixed study techniques in the evaluation of coastline dynamics - the "Porto Cesareo" MPA case of study</i>	
K. Pikelj, P. Godec, B. Cvetko Tešović	83
<i>Sedimentological consequences of Posidonia Oceanica banquette removal: Sakarun beach case study (Dugi Otok, Croatia)</i>	
D. Vandarakis, I. Kourliafitis, M. Salomidi, V. Gerakaris, Y. Issaris, Ch. Agaoglou, V. Kapsimalis, I. Panagiotopoulos	93
<i>Geomorphological approaches to study Posidonia banquettes and their effects on the coastal front of Schinias - Marathon National Park</i>	

FUP Best Practice in Scholarly Publishing (DOI 10.36253/fup_best_practice)

Laura Bonora, Donatella Carboni, Matteo De Vincenzi, Giorgio Matteucci (edited by), *Ninth International Symposium "Monitoring of Mediterranean Coastal Areas: Problems and Measurement Techniques". Livorno (Italy) 14th-16th June 2022*, © 2022 Author(s), CC BY-NC-SA 4.0, published by Firenze University Press, ISBN 979-12-215-0030-1, DOI 10.36253/979-12-215-0030-1

Session:	Coastline Geography and Coastal Landscapes: territorial dynamics and integrated protection	105
Chairperson:	D. Privitera	
S. Altavilla, M. Pisconti, F. Galeano, S. Aquaro, F. Tiralongo, G. Corrente, E. Santocchini, D. Giannelli, A. Caligiore		111
<i>The development of “sustainable” surveillance and monitoring activity carried out by the Italian Coast Guard for the safeguard of the Marine Protected Areas</i>		
R. Ben Dhiab, R. Challouf, E. Derouiche, H. Ben Boubaker, W. Koched, M. Attouchi, H. Jaziri, S. Ben Ismail		122
<i>Beach macro-litter monitoring on Monastir coastal sea (Tunisia): First Findings</i>		
C. Bisci, G. Cantalamessa, S. Casavecchia, M. Tramontana, F. Spagnoli		132
<i>Coastal dunes along the Marche littoral (Adriatic side of Central Italy)</i>		
T. Bisiani		146
<i>Trieste, back to the sea. Designing sustainability and development of logistics and industrial port areas after the pandemic</i>		
J. Buoninsegni, E. Olivo, M.G. Paletta, C. Vaccaro, C. Corbau		156
<i>Marine litter surveys on Boccasette beach (Rovigo, Italy)</i>		
A.R. Candura, L. Fois, E. Poli		165
<i>The economic and environmental impact of large ships on the territory, on the coast and on the sea: the MSC cruises case study</i>		
D. Carboni, G. Messina, V. Gazale, E. Tarricone		175
<i>Fishing and territory. Status and perspectives of Sardinia artisanal fisheries. The case of traditional fishery in Asinara Island MPA</i>		
A. Cazzani, M. Peli, S. Barontini		187
<i>Analysis and survey of Lake Garda lemon houses: a tool to understand and manage a Mediterranean landscape in Lombardy</i>		
F. D’Ascola, A. L. Beck, M. L. Cassese, M. Jones, N. Lugerì, V. Pesarino, A. Salmeri, M. Amine Taji		200
<i>Monitoring of the evolution of “barene” borders and the safeguard of the Venice Lagoon morphology: a contribution from the “Coastal Change from Space” project results</i>		
J. Dorigatti, T. Peric, G. Jelic Mrcelic		211
<i>Marine protected areas and the problem of paper parks</i>		
C. Farris, D. Giaiotti, S. Miniussi, C. Sgubin, N. Tudorov		221
<i>An integrated approach for marine litter hot spots identification</i>		
L. Giordano, F. P. Buonocunto, L. Ferraro, A. Milia, C. Violante		234
<i>The environmental function analysis: a promising tool to evaluate the coastal zone conservation potential</i>		

A. Ivona, L. Lopez, D. Privitera	244
<i>Old landmarks and new functions. Coastal architectures redesign the geography of the coastal belts</i>	
G. Luciani	253
<i>Water, heritage, city: urbanized deltas on the line between nature and culture</i>	
M. Marras, M. Ladu	262
<i>Nature protection and local development: a study concerning a natural park located in Sardinia (Italy)</i>	
C. Montaldi, P. Fischione, D. Pasquali, F. Zullo	272
<i>Land use analysis and coastal structures: Adriatic Coast as a case study</i>	
R. Pombo, C. Coelho, P. Roebeling	283
<i>Protecting Vagueira (Portugal) waterfront: preserving natural, recreational, residential, and commercial functions</i>	
Ma. Russo	293
<i>The territorial organization of the Amalfi Coast: nature and man's intervention</i>	
C. Saragosa, M. Chiti	303
<i>Atmospheric agents and spatial planning. Case study of the Municipality of Rosignano Marittimo in Tuscany</i>	
M. Savino, C. Cesarini, F. Da Ru	312
<i>A new proposal for a strategic and resilient regeneration plan for seaside waterfronts. An Adriatic case: Riccione</i>	
M. Simeone, P. Masucci, M. Defina, G. Di Pace, C. De Vivo	322
<i>Development of a sustainable accessibility model for the Marine Protected Area Gaiola Underwater Park, in Naples, Italy</i>	
A. Sopina, B. Bojanic Obad Scitaroci	333
<i>Spatial planning prospects on changeability process of urban and natural (Land)scape relations - The dynamics of Ancona on the West and Rijeka on the East Adriatic coast</i>	
V. Spagnoli, C. Piferi	343
<i>Regeneration of historic centers in Mediterranean cities: the case study of the Venice district in Livorno</i>	
Session:	Coastal Environmental Engineering:
	pollution, energy production, monitoring and economic
	environmental assessment, regulatory context
	355
Chairperson:	M. Catelani
M. Bagnarol, M. Celio, S. Del Frate, D. Giaiotti, S. Martini, M. Mauro	365
<i>The ARPA FVG support to oil spill emergency response in the Gulf of Trieste</i>	

A. Ben Mefteh, V. Mesnage, S. Ben Jeddi, A. Helali, N. Zaaboub, J.-M. Barrois, W. Oueslati	378
<i>Assessment of trace metal contamination and phosphorus dynamic in sediments of Monastir Bay (Tunisia)</i>	
F. Benincasa, M. De Vincenzi, G. Fasano	390
<i>The Forgotten Nautical Astronomical instruments</i>	
F. Benincasa, M. De Vincenzi, G. Fasano	401
<i>Sea level measurements in Mediterranean coasts</i>	
C. Chouba, S. Delpoux, L. Causse, M. Marie, R. Freydier, M. Toubiana, P. Monfort, O. Pringault, C. Montigny	416
<i>Status of water quality and impact of dredging activities in four ports of the Gulf of Aigues Mortes (France)</i>	
D. Colarossi, E. Tagliolini, P. Principi	426
<i>Optimization model for a hybrid photovoltaic/cold ironing system: life cycle cost and energetic/environmental analysis</i>	
I. Dalle Mura, E. Barbone, D. Battista, C.G. Giannuzzi, S. Ranieri, G. Strippoli, An. Zito, N. Ungaro	436
<i>A first assessment of microplastics in the sea waters off the Puglia Region</i>	
P. Diviaco, M. Iurcev, R. Carbajales, A. Busato, M. Burca, A. Viola, N. Potleca, S. Zanardi, I. Cunico, N. Pino	446
<i>Citizen science based marine environmental monitoring. The MOANA60 experience</i>	
J. Droit, M. El Fadili, M. Messenger	456
<i>Assessment of the chemical quality of sediments in the maritime port of Réunion. Concentrations in trace metals and natural geochemical backgrounds</i>	
M. Esposito, M. Della Rotonda, C. Sbarra, M. Stefanelli, M. G. Aquila, A. Anastasio, P. Sarnelli, P. Gallo, Y. Cotroneo, L. Fortunato, R. Montella, L. De Maio	461
<i>Environmental investigations in the Gulf of Pozzuoli (Naples) in relation to PAHs contamination</i>	
H. Jaziri, E. Derouiche, W. Koched, H. Ben Boubaker, R. Ben Dhiab, R. Challouf, S. Ben Ismail	471
<i>First investigation of microplastic pollution in Monastir Sea surface water (Eastern Tunisia)</i>	
M. Kedzierski, M. Palazot, L. Soccalingame, M. Falcou-Préfol, G. Gorsky, F. Galgani, S. Bruzaud, M. L. Pedrotti	484
<i>Chemical composition of microplastics floating on the Mediterranean Sea surface</i>	
G. Lombardini, P. Salmona, A. C. Taramasso	494
<i>Application of statistical analysis to estimate the costal hazard. A case study in Liguria region</i>	

D. Malcangio, D. Celli, U. Fratino, M.F. Bruno, M.G. Molfetta, L. Pratola, S. Geronimo, A. M. Lotito, P. F. Garofoli, M. Di Risio	504
<i>Biodiversity smart monitoring guided by historical analysis of coastal evolution</i>	
Da. Mance, Di. Mance, D. Vukić-Lušić	515
<i>Managing water commons using mediator variables to bridge the gap between environmental factors and anthropogenic pollution indicators</i>	
Di. Mance, D. Lenac, M. Radišić, Da. Mance, J. Rubinić	525
<i>The use of ²H and ¹⁸O isotopes in the study of coastal karstic aquifer</i>	
A. Milia, F.P. Buonocunto, A. Di Leo, L. Ferraro, S. Giandomenico, L. Giordano, M. Mali	535
<i>Grain size, nutrients and heavy metals analysis to evaluate natural vs anthropogenic sources in the sea environment (Naples Bay, Eastern Tyrrhenian Sea)</i>	
S. F. Ozmen, B. Topcuoglu	545
<i>Determination of natural radioactivity levels of sludges collected from wastewater treatment plants of Antalya/Türkiye</i>	
F. Serafino, A. Bianco	551
<i>Analysis of the limits for the detection of small garbage island immersed in clutter radar</i>	
L. Soccalingame, M. Notheaux, M. Palazot, M. Kedzierski, S. Bruzaud	560
<i>Extraction and characterization methods for microplastics from estuarine and coastal samplings – Example of the 2019 TARA expedition</i>	
P. Ventura, M. Palmarocchi, C. Domeniconi	568
<i>New artificial reef in coastal protection reconversion and electric power production</i>	
Session:	
Flora and Fauna of the littoral system: dynamics and protection	581
Chairperson: D. Travaglini	
S. Caronni, F. Atzori, S. Citterio, V. Bracchi, N. Cadoni, R. Gentili, L. Quaglini, D. Basso	587
<i>Are caulerpa species able to settle and develop on rhodolite beds? The case study of Marine Protected Area “Capo Carbonara”</i>	
J. Castro-Fernández, J. M. Disdier-Gomez, O. Reñones, J. Moranta, I. Castejón-Silvo, J. Terrados, H. Hinz	596
<i>Using diver-operated stereo-video to monitor juvenile fish assemblages in Mediterranean coastal habitats formed by macrophytes</i>	
E. Cecchi, L. Piazzzi, M. Ria, G. Marino, A. Nicastro	606
<i>Coralligenous cliffs in Tuscany: distribution, extension of the habitat and structure of assemblages</i>	

G. Cecchi, G. Burini, A. Giglio, R. Giglio, M. Fustolo, Al. Zito, D. Asprea, E. Madeo, S. Giglio	611
<i>New reports on the presence of Callinectes sapidus (Rathbun, 1896) along the Calabrian coasts</i>	
V. Costa, R. Chemello, D. Iaciofano, S. Lo Brutto, F. Rossi	619
<i>Seagrass detritus as marine macroinvertebrates attractor</i>	
M. Cutajar, S. Lanfranco	627
<i>Spatial displacement of nearshore vegetation in response to artificial changes in coastal morphology</i>	
M. De Gioia, I. Dalle Mura, F. M. D’Onghia, G. Strippoli, G. Costantino, E. Barbone, N. Ungaro	637
<i>The role of scientific divers in the ADRIREEF project: ARPA Puglia activities</i>	
F. Drouet, J.-L. Jamet, D. Jamet, F. Miralles, M. Brochen, F. Chavanon, C. Brach-Papa	647
<i>Mercury concentrations and transfers in phyto- and zooplankton communities in a coastal mediterranean ecosystem (Bay of Toulon, France)</i>	
F. Ferraro, A. Longo, C. Ruge	656
<i>Renaturalization interventions within a regional forest complex located in a costal pine forest in the south of Italy</i>	
M. Florio Furno, D. Ferrero, A. Poli, V. Prigione, M. Tuohy, M. Oliva, C. Pretti, G. C. Varese	667
<i>Fungi from the sediments of the harbour of Livorno as potential bioremediation agents</i>	
B. Herut et IOLR Scientists	677
<i>The National Monitoring Program of Israel's Mediterranean Waters – Scientific Perspectives</i>	
M. Lapinski, M. Perrot, J. Dalle, A. Guilbert, F. Holon, P. Boissery, E. Clamagirand, P. Thievent, N. Chardin, M. Bouchoucha	685
<i>In situ rare long term observations of the dogtooth grouper Epinephelus caninus in artificial reefs recently immersed in the National park of the Calanques (North-western Mediterranean sea, France)</i>	
V. Lazzeri, A. Scartazza, F. Bretzel, R. Pini, I. Rosellini, R. Guernelli, E. Franchi, G. Petruzzelli, M. Barbafieri	693
<i>Effects of petroleum hydrocarbons on Salicornia perennans germination and growth under saline conditions</i>	
I. Lolli	700
<i>The protection of Posidonia oceanica (L.) Delile and the management of its beach-cast leaves. The italian juridical framework</i>	
G. Mancini, D. Ventura, E. Casoli, A. Belluscio, G.D. Ardizzone	719
<i>Colonization of transplanted Posidonia oceanica: understanding the spatial dynamics through high-spatial resolution underwater photomosaics</i>	

M. Mazzetti, L. Marsili, S. Valsecchi, C. Roscioli, S. Polesello, P. Altemura, A. Voliani, C. Mancusi	729
<i>First investigation of per-and poly fluoroalkylsubstances (PFAS) in striped dolphin Stenella coeruleoalba stranded along Tuscany coast (North Western Mediterranean Sea)</i>	
A. Neri, C. Mancusi, L. Marsili, P. Sartor, A. Voliani	738
<i>Stomach contents of bottlenose dolphin Tursiops Truncatus (Montagu, 1821): first results from specimens stranded in the tuscan archipelago in the period 1990–2021</i>	
S. Risoli, S. Sarrocco, G. Terracciano, R. Baroncelli, M. A.L. Zuffi, C. Mancusi, C. Nali	747
<i>Isolation and molecular characterization of Fusarium species (Fungi, Ascomycota) from unhatched eggs of Caretta caretta in Tuscany (Italy)</i>	
S. Sahbani, R. Toujani, N. Ben M'Barek, E. Ottaviani, E. Riccomagno, E. Prampolini, H. Missaoui, B. Bejaoui,	756
<i>Effect of Climate Change and anthropogenic pressures on the European eel Anguilla anguilla from Ramsar Wetland Ichkeul Lake: Prediction from the Random Forest model</i>	
V. Tomaselli, F. Mantino, G. Albanese, C. Tarantino, M. Adamo	766
<i>Monitoring changes over a 10-year period, through vegetation maps, in a coastal site in Apulia Region (SouthEastern Italy)</i>	
D. Travaglini, C. Garosi, F. Logli, F. Parisi, I. Ursumando, C. Vettori, D. Paffetti	775
<i>Stand structure and natural regeneration in a coastal stone pine (Pinus pinea L.) forest in central Italy</i>	
E. Turicchia, C. Cerrano, M. Ghetta, F. Giannini, M. Abbiati, M. Ponti	785
<i>Ecological status of the Tuscan archipelago rocky habitats assessed by the Medsens index</i>	
Session: Underwater and Coastal Cultural Heritage	795
Chairperson: Marinella Pasquinucci	
M. C. Alati	801
<i>Territorial transformations, landscape and architectural features of the “Tenuta di Isola Sacra” in the reclamation of the early 1900s</i>	
B. Bertoli, Mrn. Russo, L. Marcolongo, C. Cirillo	811
<i>Massa Lubrense coast and its modifications during the twentieth century</i>	
C. Cirillo, G. Acampora, L. Scarpa, Mrn. Russo, B. Bertoli, L. Marcolongo	822
<i>The port of Neapolis: memories and traces of the coastal landscape in ancient times</i>	
F. Fratini, F. De Vita, D. Pittaluga, S. Rescic	834
<i>The building materials of “Rocca Vecchia” (Old Fortress) in the Gorgona island</i>	
G. Muscatello, C. Mitello	844
<i>Making a site otherwise inaccessible accessible: 3D laser scanner scanning of the Grotta dei Cervi di Porto Badisco in Otranto (Le)</i>	

A. Pellettieri	855
<i>...in finibus Lucaniae. Historical cartography of the Tyrrhenian coast and demographic fluctuations</i>	
E. Pribaz, I. Lotti, R. Raffalli, P. Chiavaccini	865
<i>The Torre del Marzocco and the widening of the entry channel to the industrial port of Livorno</i>	
P. Tartara	875
<i>Natural resources and coastal productive settlements in southern Puglia</i>	
M. P. Usai	887
<i>Tuna: underwater natural and cultural heritage. The Tunèa case study, a project for the re-connection between coastal community and marine ecosystem</i>	
<i>Index of Authors</i>	897