



Istituto per la
BioEconomia

Consiglio Nazionale delle Ricerche



Società Italiana di Selvicoltura ed Ecologia Forestale



Ninth International Symposium

MONITORING OF MEDITERRANEAN COASTAL AREAS: problems and measurement techniques

June 14-15-16, 2022 - Natural History Museum of the Mediterranean, Livorno - Italy

Tuesday June 14

- 9.00 Symposium Registration
 - Presentation and Addresses by Authorities and by Symposiarch
 - Session *Morphology and evolution of coastlines and seabeds*
- 12.40 Break
- 14.40 Resumption of previous session
- 17.00 Conclusion of the first day
- 17.00 - 19.00 Guided tour of Port area

Wednesday June 15

- 9.00 Opening of the Secretariat
 - Session *Coastline Geography and Coastal Landscapes: territorial dynamics and integrated protection*
- 12.40 Break
- 14.30 - Session *Coastal Environmental Engineering: pollution, energy production, monitoring and economic environmental assessment, regulatory context*
- 17.40 Conclusion of the second day
- 17.40 - 20.00 Guided tour of Port area

Thursday June 16

- 9.00 Opening of the Secretariat
 - Session *Flora and Fauna of the littoral system: dynamics and protection*
- 12.40 Break
- 14.30 - Session *Underwater and Coastal Cultural Heritage*
- 17.40 Conclusion of Symposium
- 17.40 - 19.00 Guided tour to Museum
- 20.30 Prize-giving ceremony for the three best posters



LA FORTEZZA NUOVA

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9th International Symposium
**“Monitoring of Mediterranean Coastal Areas:
problems and measurement techniques”**
Livorno (Italy) 14th - 16th June 2022

Museum of Mediterranean Natural History - Via Roma 234 - Livorno

PROGRAMME

First Day Tuesday 14th June 2022

9.00 Symposium Registration

10.00 Symposium Opening Ceremony – Presentation and Addresses by Authorities and by Symposiarch

11.10 Coffee break; Posters installation

11.30 Introduction by Symposiarch, Donatella Carboni

11.50 Session Morphology and evolution of coastlines and seabeds, chairperson Giovanni Sarti

12.00 *Impacted river and coastal sediment connectivity in the Mediterranean: a context for rampant coastal vulnerability in the face of climate change*

E. Anthony

12.20 *Beach sediment dynamics from natural radionuclides point of view*

A. del C. Arriola Velásquez, A. Tejera, I. Alonso, W. Geibert, I. Stimac, F. Cámara, H. Alonso, J.G. Rubiano, P. Martel

12.40 Lunch break

14.40 Session Morphology and evolution of coastlines and seabeds, to be continued

14.40 *Shoreline and environmental changes detection in the Gulf of Gela, Southern Sicily (Italy)*

L. Borzì, G. Anfuso, G. Manno, S. Di Stefano, S. Urso, D. Chiarella, A. Di Stefano

15.00 *Climate and morphological effects on the coastal environment evolution and a new method for shoreline identification*

M. Luppichini, M. Bini, A. Berton, N. Casarosa, S. Merlino, M. Paterni

15.20 *Use of mixed study techniques in the evaluation of coastline dynamics - the “Porto Cesareo” MPA case of study*

A. Picciolo, R. Auriemma, S. Fai, L. Coluccia, A. Antonazzo, C. Buccolieri

15.40 *Coffee break and Posters viewing*

16.00 *Sedimentological consequences of Posidonia Oceanica banquette removal: Sakarun beach case study (Dugi Otok, Croatia)*

K. Pikelj, P. Godec, B. Cvetko Tešović

16.20 *Video monitoring and Convolutional Neural Networks for the assessment of extreme marine events on the rocky coasts of Maddalena Peninsula*

G. Scardino, T. Denora, S. Zappalà, G. Mazza, A. Piscitelli, G. Scicchitano

16.40 *In-situ radiometric method for mapping natural gamma radiation for sediment dynamics evaluation in coastal areas*

C. Tsabaris, D.L. Patiris, S. Alexakis, G. Eleftheriou, F. Androulakaki, F.K. Pappa, K. Sarantakos, S.K. Roumelioti, I.K. Mitsios, E. Ioannidou, Ch. Maramathas, J. Thereska

17.00 End of first workday

17.00 – 19.00 Guided tour to “Historical Area of Livorno Port Torre del Marzocco”

Second Day Wednesday 15th June 2022

9.00 Opening of Secretary's Office

9.10 Session *Coastline Geography and Coastal Landscapes: territorial dynamics and integrated protection*, chairperson Donatella Privitera

9.20 *Beach macro-litter monitoring on Monastir coastal sea (Tunisia): First Findings*

R. Ben Dhiab, R.Challouf, E. Derouiche, H. Ben Boubaker, W. Koched, M. Attouchi, H. Jaziri, S. Ben Ismail

9.40 *Trieste, back to the sea. Designing sustainability and development of logistics and industrial port areas after the pandemic*

T. Bisiani

10.00 *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*

F. D'Ascola, A.-L. Beck, V. Pesarino, M. L. Cassese, M. Jones, A. Salmeri, M. Amine Taji

10.20 *Comparative analysis of beached macrolitter collection protocols: a variability-based perspective*

L. Fanini, F. Bozzeda, V.-S. Salvo, M. Pinna

10.40 Coffee break and Posters viewing

11.20 *An integrated approach for marine litter hot spots identification*

C. Farris, D. Giaiotti, S. Miniussi, C. Sgubin, N. Tudorov

11.40 *Land use analysis and coastal structures: Adriatic Coast as a case study*

C. Montaldi, P. Fischione, D. Pasquali, F. Zullo

12.00 *The economic and environmental impact of large ships on the territory, on the coast and on the sea: the MSC cruises case study*

E. Poli, A.R. Candura

12.20 *Spatial Planning Influence on Changeability Process of Urban and Natural (Land)scape Relation: Understanding the dynamics of Ancona on the West and Rijeka on the East Adriatic Coast*

A. Sopina, B. Bojanic Obad Scitaroci

12.40 Lunch break

14.30 Session *Coastal Environmental Engineering: pollution, energy production, monitoring and economic environmental assessment, regulatory context*, chairperson Marcantonio Catelani

14.40 *The ESA Project ULYSSES: Soil Sealing Assessment and Monitoring*

A. Amodio, V. De Pasquale, S. Haouet, C. Sannier, A. Masse, L. Congedo, G. Giorgi, O. Arino

15.00 *Optimization model for a hybrid photovoltaic/cold ironing system: life cycle cost and energetic/environmental analysis*

D. Colarossi, E. Tagliolini, P. Principi

15.20 *First investigation of microplastic pollution in Monastir Sea surface water (Eastern Tunisia)*

E. Derouiche, H. Jaziri, W. Kouched, H. Ben Boubaker, S. Ben Ismail

15.40 *Environmental investigations in the Gulf of Pozzuoli (Naples) in relation to PAHs contamination*

M. Esposito, M. Della Rotonda, C. Sbarra, M. Stefanelli, M. G. Aquila, A. Anastasio, P. Sarnelli, P. Gallo, L. De Maio

16.00 Coffee break and Posters viewing

16.20 *An energy and cost effective autonomous seawater ammonium sensor*

Y. Jacobson, J. Sticklus, E. Achterberg

16.40 *An automated drift correction method for in situ NaI(Tl)-detectors used in extreme environments*

R. le Roux, J. Bezuidenhout

17.00 *Application of statistical analysis to estimate the coastal hazard. A case study in Liguria region*

G. Lombardini, A. C. Taramasso

17.20 *Biodiversity smart monitoring informed by historical analysis of coastal evolution*

D. Malcangio, D. Celli, M.F. Bruno, M.G. Molfetta, L. Pratola, S. Geronimo, A. M. Lotito, P. F. Garofoli, M. Di. Risio

17.40 End of second workday

17.40 – 20.00 Guided tour to "Historical Lighthouse of Livorno Port"

Third Day Thursday 16th June 2022

9.00 Opening of Secretary's Office

9.10 Session *Flora and Fauna of the littoral system: dynamics and protection*, chairperson Davide Travaglini

9.20 *Are caulerpa species able to settle and develop on deep rhodolite beds? The study case of Capo Carbonara Marine Protected Area*

S. Caronni, F. Atzori, S. Citterio, V. Bracchi, N. Cadoni, R. Gentili, L. Quaglini, D. Basso

9.40 *Using diver-operated stereo-video to monitor juvenile fish assemblages in Mediterranean coastal habitats formed by macrophytes*

J. Castro-Fernández, J. M. Disdier, O. Reñones, J. Moranta, I. Castejón-Silvo, J. Terrados, H. Hinz

10.00 *Seagrass detritus as marine macroinvertebrates attractor*

V. Costa, R. Chemello, D. Iacofano, S. Lo Brutto, F. Rossi

10.20 *Mercury concentrations and transfers in phyto- and zooplankton. Communities in a coastal mediterranean ecosystem (Bay of Toulon, France)*

F. Drouet, J.-L. Jamet, D. Jamet, F. Miralles, M. Brochen, F. Chavanon, C. Brach-Papa

10.40 Coffee break and Posters viewing

11.00 *Colonization of transplanted Posidonia oceanica: understanding the spatial dynamics through high-spatial resolution underwater photomosaics*

G. Mancini, E. Casoli, D. Ventura, A. Belluscio, G.D. Ardizzone

11.20 *First investigation of per-and poly fluoroalkylsubstances (PFAS) in striped dolphin Stenella coeruleoalba stranded along Tuscany coast (North Western Mediterranean Sea)*

M. Mazzetti, L. Marsili, S. Valsecchi, C. Roscioli, S. Polesello, P. Altemura, A. Voliani, C. Mancusi

11.40 *Phytoplankton and bacterial response to dry and wet deposition in the coastal waters of the southeastern Mediterranean Sea: Lessons from high-resolution monitoring*

E. Rahav, B. Herut

12.00 *Monitoring changes over a 10-year period, through vegetation maps, in a coastal site in Puglia Region (South-Eastern Italy)*

V. Tomaselli, F. Mantino, G. Albanese, C. Tarantino, M. Adamo

12.20 *Filling the gap between marine citizen science and coastal management: the MedSens index*

E. Turicchia, C. Cerrano, M. Ghetta, M. Abbiati, M. Ponti

12.40 Lunch break

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

14.40 *Territorial transformations, landscape and architectural features of the "Tenuta di Isola Sacra" in the reclamation of the early 1900s*

M. C. Alati

15.00 *The port of Neapolis: memories and traces of the coastal landscape in ancient times*

C. Cirillo, G. Acampora, L. Scarpa, M. Russo, B. Bertoli, L. Marcolongo

15.20 *...in finibus Lucaniae. The drawing of Tyrrhenian coast and its demographic fluctuations*

A. Pellettieri

15.40 *Protecting the landscape and cultural heritage of Salento to safeguard the sustainable development of its coastal areas*

M. Piccarreta, M. Catalano

16.00 *Coffee break and Posters viewing*

16.20 *The Torre del Marzocco and the widening of access to the industrial channel of Livorno*

E. Pribaz, I. Lotti, P. Chiavaccini, R. Raffalli

16.40 *The coastal and underwater cultural heritage of Calabria. case studies in the provinces of Reggio Calabria and Vibo Valentia*

A. Ruga, A. Ghelli, A. M. Gennaro, M. Mazza, M. S. Scaravilli

17.00 *Natural resources and coastal productive settlements in southern Puglia*

P. Tartara

17.20 *Tuna: underwater natural and cultural heritage. The Tunèa case study, a project for the re-connection between coastal community and marine ecosystem*

M. P. Usai

17.40 Conclusion of Symposium

17.40 – 19.00 **Guided tour to Museum of Mediterranean Natural History**

20.30 Prize-giving ceremony and social event

Poster Presentations

Session Morphology and evolution of coastlines and seabeds

A comparison between two anthropized coarse-clastic beaches in the Mediterranean area: Marina di Pisa (Italy) Vs Nice (France)

D. Bertoni A. Pozzebon, R. Dumasdelage, J. Larraun., G. Sarti

The TAO project (technologies for coastal monitoring), strategies, objectives and first results

C. Bidini, G. Stanghellini, L. Gasperini, F. Del Bianco

Monitoring the protected coast of Southern Cilento as an opportunity for sustainable management

V. Catalano, A. Cestari, D. Guida, A. Valente

From coastline to backshore: a Geodatabase for the monitoring and analysis of the state of the Italian coasts

F. D'Ascola, M. L. Cassese, V. Pesarino, A. Salmeri

Coastal erosion: causes, methodologies and possible solutions

I. Falconi

Case study of the lava flows effects on the coast and seabed (La Palma Island) and its implications for improving early warning systems to apply in the Mediterranean volcanic islands monitoring

M. Gómez-Ballesteros, T. Vázquez, E. Fraile, O. Sánchez-Guillamón, B. Arrese, M. García, M.E. Huertas, A. Tovar, A. González-Vega, J.P. Martín-Díaz, I. Ferrera, A. Álvarez-Valero, S. Naranjo, D. Roque, G. Navarro, J. Escánez-Pérez, C. Presas-Navarro, P. Lozano, J.M. Arrieta

Drowned coastlines: can we rest the damage of global warming?

H. S. Limogianni, P. J. Stavroulakis, S. Papadimitriou

Evolution of the surface roughness of a coarse sand after a beach nourishment

I. López, J. I. Pagán

Use of RPAS to monitor coastal dune systems and beach erosion in Guardamar Del Segura, Spain

J. I. Pagán, L. Bañón; P. Ortíz; L. Aragonés, I. López

Source to sink sediment budget along the Algerian coastline

M. Quinquis, F. Sabatier, E. Anthony

Geomorphological approaches to study Posidonia banquettes and their effects on the coastal front of Schinias - Marathon National Park

D. Vandarakis, I. Kourliafitis, M. Salomidi, V. Gerakaris, Y. Issaris, C. Agaoglou, V. Kapsimalis, I. Panagiotopoulos

Session Coastline Geography and Coastal Landscapes: territorial dynamics and integrated protection

Waterfront: test for resilience. Messina and the possible virtuous convergences between PRG and PRP

M. Arena, F. Cannata

Coastal dunes along the Marche littoral (Adriatic side of Central Italy)

C. Bisci, G. Cantalamessa, S. Casavecchia, F. Spagnoli Federico, M. Tramontana

Marine litter surveys on Boccasette beach (Rovigo, Italy)

J. Buoninsegni, E. Olivo, M.G. Paletta, C. Vaccaro, C. Corbau

The development of "sustainable" surveillance and monitoring activity carried out by the Coast guard for the safeguard of the Protected Marine Areas

A. Caligiore, S. Altavilla, E. Santocchini, D. Giannelli, M. Pisconti, F. Galeano, F. Tiralongo; S. Aquaro, G. Corrente

Fishing and territory. Status and Perspectives of Sardinia artisanal Fisheries

D. Carboni, E. Tarricone, G. Messina

Analysis and survey of Lake Garda lemon houses: A tool to understand and manage a Mediterranean landscape in Lombardy

A. Cazzani, M. Peli, S. Barontini

A new proposal for a strategic and resilient regeneration plan for seaside waterfronts. An Adriatic case: Riccione

C. Cesarini, F. Da Ru, M. Savino

Marine protected areas and the problem of paper parks

J. Dorigatti, T. Peric, G. Jelic Mrcelic

The integration of the regional strategy for sustainable development in local plans. The case study of the coastal city of Cagliari

M. Floris, F. Leccis

The environmental function analysis: a promising tool to evaluate the coastal zone conservation potential

L. Giordano, F. P. Buonocunto1, L. Ferraro, A. Milia, C. Violante

Digital techniques for the preservation of the Portuguese coastal heritage. The Belem tower in Lisbon

F. Guerriero, G. P. Lento, R. De Caro, L. Corniello

Old landscapes and new functions. Coastal architectures redesign the geography of the coastal belts
A. Ivona, L. Lopez, D. Privitera,

Nature protection and local development: A study concerning a natural park located in Sardinia (Italy)
M. Ladu, M. Marras

Water, heritage, and city. Urbanized deltas on the line between nature and culture
G. Luciani

Marine Spatial Planning in a recently established Protected Marine Area
L. Lutzoni, A. Deiana

Coastal municipalities of Campania. Urban load, environmental load, sustainability, and climate change adaptation
G. Mazzeo

Coastal environment and landscape in a scenario of climate change: the incidence of port areas
F. Ottone, R. Cocci Grifoni

Not just restrictions. The MIPAT project: a soundscape and proactive conservancy experience of the Natural Reserve 'La Timpa' in Acireale
V. Pavone, G. de Vincenzi, V. Sciacca, S. Viola, I. Parisi, F. Caruso

Plan of use of the maritime state property of Capo d'Orlando as an opportunity for sustainable planning of the coastal zones and re-design the waterfront
A. M. Pidalà

Regeneration of historic centers in Mediterranean cities: the case study of the Venice district in Livorno
C. Piferi, V. Spagnoli

Protecting Vagueira (Portugal) waterfront: preserving natural, recreational, residential, and commercial functions
R. Pombo, C. Coelho, P. Roebeling

The territorial organization of the Amalfi Coast: nature and man's intervention
M. Russo

Atmospheric agents and spatial planning. Case study of the Municipality of Rosignano Marittimo in Tuscany
C. Saragosa, M. Chiti

Development of a sustainable accessibility model for the Marine Protected Area Gaiola Underwater Park, in Naples, Italy
M. Simeone, P. Masucci, M. Defina, G. Di Pace, C. De Vivo

Smart cruise destination: elements for sustainable development
E. Valverde, J. I. Alcaide

Analysis of the social and institutional adaptive capacity to climate change in the Catalan coastline
M. Villares, E. Roca, R. Porcar

Storytelling in waterfront planning and design: Kadiköy-Yeldeğirmeni case, İstanbul
R. Yildiz, N. Senlier, E. Ozdemir

Session Coastal Environmental Engineering: pollution, energy production, monitoring and economic environmental assessment, regulatory context

The ARPA FVG support to oil spill emergency response in the Gulf of Trieste
M. Bagnarol, M. Celio, S. Del Frate, D. Giaiotti, S. Martini

Assessment of trace metal contamination and phosphorus dynamic in sediments of Monastir bay (Tunisia, Mediterranean Sea)
A. Ben Mefteh, S. Ben Jeddi, V. Mesnage, A. Helali, N. Zaaboub, J.-M. Barrois, W. Oueslati

The Forgotten Nautical Astronomical Instruments
F. Benincasa, M. De Vincenzi, G. Fasano

Sea level measurements in Mediterranean coasts
F. Benincasa, M. De Vincenzi, G. Fasano

Status of water quality and impact of dredging activities in four ports of the Gulf of Aigues Mortes (France)
C. Chouba, S. Delpoux, L. Causse, M. Marie, R. Freydier, M. Toubiana, P. Monfort, O. Prignault, C. Montigny

A first assessment of water column microplastic's (SENSU MSFD 2008/56/ec) along the coast of Puglia Region
I. Dalle Mura, E. Barbone, D. Battista, C.G. Giannuzzi, S. Ranieri, G. Strippoli, A. Zito, N. Ungaro

Citizen science based marine environmental monitoring. The MOANA60 experience
P. Diviaco, M. Iurcev, R. Carbajales, A. Busato, M. Burca, A. Viola, N. Potleca, I. Cunico, S. Zanardi, N. Pino

Assessment of the chemical quality of sediments in the maritime port of Réunion. Concentrations in trace metals and natural geochemical backgrounds
J. Droit, M. El Fadili

Development of an underwater gamma ray detector for measurement of radionuclides in different aquatic sediments
K. Kilel, J. Bezuidenhout, M. Gatari, R. le Roux, I. Kaniu

Biomonitoring of trace metals in mussel Mytilus galloprovincialis from coastal areas along the Atlantic coast of Morocco, and its related public health hazards assessment

H. Kouali, A. Chaouti, H. Achtak, K. Elkalay, A. Dahbi

Managing water commons using mediator variables to bridge the gap between environmental factors and anthropogenic pollution indicators

Da. Mance, Di. Mance, D. Vukić Lušić

Study of ²H and ¹⁸O isotopes as a basis for characterization of a coastal karstic aquifer

Di. Mance, D. Lenac, J. Rubinić, Da. Mance, M. Radišić

Grain size, nutrients and heavy metals offsh the Sarno River (Naples Bay, Italy): an attempt to evaluate natural vs anthropogenic sources and the influence of the terrestrial input at the sea

A. Milia, F.P. Buonocunto, A. Di Leo, L. Ferraro, S. Giandomenico, L. Giordan, M. Mali

Determination of Natural Radioactivity Levels of Sludges collected from wastewater Treatment Plants of Antalya/Turkey

S. F. Ozmen, B. Topcuoglu

Chemical composition of microplastics floating on the Mediterranean Sea surface

M. Palazot, L. Soccalingame, M. Kedzierski, M. Falcou-Préfol, M. E. Kerros, M. Henry, M. L. Pedrotti S. Bruzaud

Marine energy deployment in the Mediterranean: the experience of the BLUE DEAL alliances

R. M. Pulselli, E. Neri, N. Patrizi, S. Bastianoni

Monitoring marine litter at the SE Mediterranean (Israel) continental shelf and slope (2017-2020)

Y. Segal, H. Lubinevsky

Analysis of the limits for the detection of small garbage island immersed in clutter radar

F. Serafino, A. Bianco

Organic-walled dinoflagellate cysts and benthic foraminifera in coastal sediments of the Egyptian Mediterranean Sea coast as proxies for monitoring environmental pollution

D. N. Shoaib, M. I. A. Ibrahim, A. El-Din Mostafa

Extraction and characterization methods for microplastics from estuarine and coastal samplings – Example of the 2019 TARA expedition

L. Soccalingame, M. Palazot, M. Kedzierski, S. Bruzaud

New artificial reef in coastal protection reconversion

P. Ventura, M. Palmarocchi, C. Domeniconi

Session *Flora and Fauna of the littoral system: dynamics and protection*

A museum of marine animals to learn the life in the Mediterranean Sea

R. Bedini, M. Bedini, S. Montagnani

Studies on the changes in flora and fauna of our coast

R. Bedini, M. Bedini, S. Montagnani

Breeding biology of the Eleonora's Falcon within the Galite Archipelago

H. Ben Jemaa, A. Nefla, Z. Bouragaoui, S. Nouira

Influence of seabird colonies on the diversity and organization of plant communities in small islands on the Algerian East Coast

H. Bouyahmed, R. Moulai

MSPMED Case Study: Characterizing the ecological stakes and their interactions with offsh activities in the Gulf of Lion to support the Maritime Spatial Planning processes in the Mediterranean Sea

M. Campillos-Llanos, C. Cervera-Núñez, C. Assali, S. Henry, M. Bou Cabo, N. Alloncle, M. Gómez-Ballesteros, J. Prevot

Coralligenous cliffs in Tuscany: distribution, extension of the habitat and structure of assemblages

E. Cecchi, L. Piazza, M. Ria, G. Marino, A. Nicastro

New reports on the presence of Callinectes sapidus (Rathbun, 1896) along the Calabrian coasts

G. Cecchi, G. Burini, A. Giglio, R. Giglio, M. Fustolo, A. Zito, D. Asprea, E. Madeo, S. Giglio

Spatial displacement of nearsh vegetation in response to artificial changes in coastal morphology

M. Cutajar, S. Lanfranco

On the recreational fishing in the region of Mostaganem

M. Daoudi, B. Bachir Bouiadjra, I. E. Behmene, M. Sifi, B. Mokhtar, J.A. Garcia Charton

ARPA Puglia underwater scientific activities: ESDS Contribution in the ADRIREEF Project (Interreg Italy-Croatia 2014-2020)

M. De Gioia, I. Dalle Mura, F. M. D'Onghia, G. Strippoli, G. Costantino, E. Barbone, N. Ungaro

Spatial distribution patterns of the striped venus clam (Chamelea gallina, L. 1758) natural beds in the Gulf of Cádiz (SW Spain)

M. Delgado, S. Román, L. Silva, S. Llorens, A. Rodríguez-Rua, M. Cojan, E. Marco

Water column phosphatase activity assessment in a marine coastal environment and its relationship with rain events

M. Fanelli, F. Girolametti, B. Ajdini, C. Truzzi, S. Illuminati, A. Annibaldi, C. Totti, S. Accoroni

- Re-naturalization interventions within a Regional F st complex located in the countryside of Frassanito (Otranto - Le) characterized by a high f st mainly of Stone Pine, with the presence of Aleppo Pine, with incipient undergrowth, occasionally affirmed of evergreen sclerophylls*
F. Ferraro, A. Longo, C. Rugge
- The marine mycobiota of platisphere: a focus on the harbor of Livorno and the Meloria shoals*
M. Florio Furno, A. Poli, V. Prigione, F. Spina, D. Ferrero, I. Perugini, C. Pretti, G. C. Varese
- Mapping the Posidonia oceanica (Linnaeus) Delile, 1813 meadow of Erimitis, northeast Corfu, Greece*
R. Gkikas, R. Naasan Aga Spyridopoulou, I. Giovos
- The National Monitoring Program of Israel's Mediterranean Waters – Scientific Perspectives*
B. Herut et IOLR Scientists
- Assessment of the Trophic Status of the Boughrara Lagoon (Southeast of Tunisia): Geochemical and Statistical Approach*
G. Lajmi, R. Ben Amor
- 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)*
M. Lapinski, M. Perrot, J. Dalle, A. Guilbert, F. Holon, P. Boissery, E. Clamagirand, P. Thievent, N. Chardin, M. Bouchoucha
- Feeding ecology of common dolphin (Delphinus delphis) and Bottlenose dolphin (Tursiops truncatus) from the Algerian west coasts*
K. Larbi Doukara,
- Effects of petroleum hydrocarbons on Salicornia perennans germination and growth under saline conditions*
V. Lazzeri, A. Scartazza, F. Bretzel, R. Pini, I. Rosellini, R. Guernelli, E. Franchi, G. Petruzzelli, M. Barbafieri
- M than 28 years of protection measures to rest French mediterranean populations of the brown grouper, Epinephelus marginatus: tools, population evolution and prospects*
P. Lenfant, F. Bachet, J.L. Binche, F. Bonhomme, J. Cabaret, M. Cantou, E. Charbonnel, J.M. Cottalorda, J.M. Culioli, P. Francour, A. Ganteaume, J.-G. Harmelin, M. Harmelin-Vivien, C. Jomard, L. Le Direach, P. Lelong, T. Mokhtari, P. Robert, S. Ruitton
- The protection of Posidonia oceanica (L.) Delile and the management of the so called banquette. The juridical framework*
I. Lolli
- On phenology changes of two jellyfish species (Aequ a Forskalea, Cotylorhiza Tuberculata) in the Northern Adriatic: comparison of recent and early 20th century data*
D. Lucic, N. Bojanić, M. Vodopivec, I. Violić, B. Petelin, A. Malej
- Larval recruitment of Ostrea spp. in the Mar Menor lagoon (SE Spain) and use for restocking and bi mediation*
A. Lunetta, M. Albertosa, E. Nebot-Colomer, B. G. Pardo, P. Martínez, A. Villalba, G. Donato, M. I. Akinyemi, M. Vázquez-Luis
- Spatio-temporal characterization of natural beds of bivalve molluscs in the intertidal areas of the Gulf of Cádiz (SW Iberian Peninsula)*
E. Marco-Herrero, A. Rodríguez-Rúa, S. Román, L. Silva, M. Cojan, M. Delgado
- PSII Photochemistry and the metabolome of Limbarda crithmoides (L.) Dumort. in a Mediterranean salt marsh: seasonal and annual variations*
J.-P. Mevy
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