

RESISTANCE project

One-day study visits

- Report -

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Introduction

The main goal of RESISTANCE project is to share marine monitoring knowledge and experiences in the sea, coastal and river environments by capitalizing the results of ECOMAP, ECOSS, NET4mPLASTIC, SOUNDSCAPE, DORY, SASPAS and ML-REPAIR. The different types of outputs were exploited in the project, all with a common goal – marine environment protection.

RESISTANCE's WP3 clustering activities aimed at facilitating a consensus on the previous issues along the different partner's projects. This network activities consequently allowed them to share their experiences and report on their major project outcomes.

As a consequence, act. 3.1 is dedicated to the elaboration of an exploitation plan summarizing results and tools developed by all partners. Successively, partners were involved in the realization of guidelines sharing best practices and protocols (useful for MSP) considering the needs of the different stakeholders involved in workshop activity 3.3 and study visits.

6 study visits (Vis, Kornati, Split, Comacchio, Ravenna, Cesenatico) were organized at selected pilot sites to gain experience on activities and best practices developed by cluster projects.

Study visit to Split and Podstrana, July 18, 2022

Within the ECOMAP project, one of the projects included in the RESISTANCE project, activities of project-based development and application of the up-to-date sustainable solutions for small infrastructure and equipment of marinas and beaches, have been performed.

Eco-sustainable arrangement of the beach in Podstrana was achieved by using sustainable tools and equipment, eco-sustainable management of marinas in Split and Podstrana was achieved by the construction of the collection and treatment of wastewater systems and collection and management of polluted rain waters. These two marinas and beach have been awarded with the environmental certification (Blue flag).

On the 18th of July, RESISTANCE project partners visited the ECOMAP's project pilot sites in Croatia:

Maritime Sports Society Špinut (pilot site: marina Špinut, Split, Croatia) and Sports Fishing Society Strožanac (pilot site: marina Strožanac, Podstrana, Croatia) realized the equipment and small infrastructure for collection and treatment of wastewater from moles, as well as system for collection and management of polluted rain waters from repair and maintenance area.

Municipality of Podstrana (pilot site: coastal area of Podstrana), according to the highest ecological standards, arranged the beach. The project referred to the installation of two mobile recycling yards in the coastal area of the Municipality of Podstrana with the aim of reducing unsorted waste on beaches. The dredging machine was acquired for the purpose of beach nourishment in Podstrana, cleaning the seabed from waste and providing easier access to boats in the area of the port of Strožanac

Conclusion

The study visit to Split and Podstrana was organized by Municipality of Podstrana, lead partner of RESISTANCE project.

The pilot sites visit to Split and Podstrana has been attended by 21 participants, including regional public authority representative (2) and NGO (1) outside project partnership.

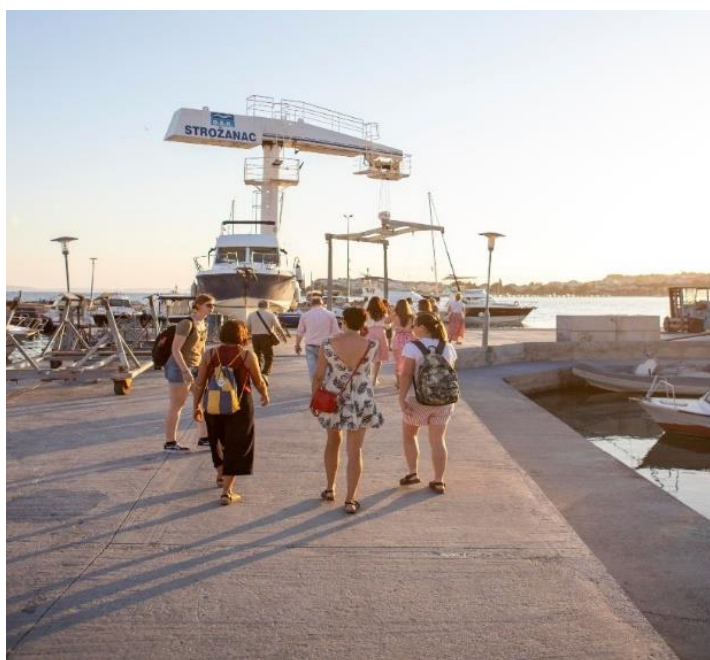
Media representative of regional radio (HR Split) and local media representative (podstrana-portal.com) were present.

Photos of study visit to marina Špinut, Split, Croatia





Photos of study visit to marina Strožanac, Podstrana, Croatia



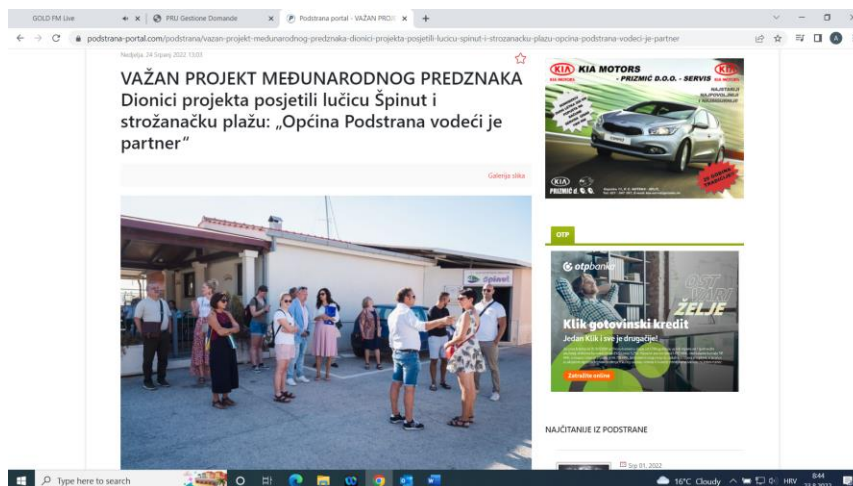


Photos of study visit to Podstrana beach, Croatia





STUDY VISIT IN SPLIT AND PODSTRANA - VISIBILITY



<https://www.podstrana-portal.com/podstrana/vazan-projekt-medunarodnog-predznaka-dionici-projekta-posjetili-lucicu-spinut-i-strozanacku-plazu-opcina-podstrana-vodeci-je-partner>

Study visit to Kornati National Park, July 20, 2022

Public Institution Kornati National Park was one of the partners of **project SASPAS** " Safe Anchoring and Seagrass Protection in the Adriatic Sea ". The challenge of SASPAS was to preserve and get a better status of conservation of biodiversity of the Adriatic Sea ecosystem in order to decrease its vulnerability.

Public institution Kornati National Park, within the project SASPAS, carried out two main activities for the protection and preservation of seagrass *Posidonia oceanica*:

- pilot transplantations of *Posidonia oceanica* to try restore damaged seagrass meadows
- establishment of an environmentally friendly anchoring system to prevent further damage to *Posidonia oceanica* meadows (to define a maximum number of vessels per day, to improve the safety of navigation in the park area, etc...)

On 20th of July, the RESISTANCE projects partners visited the SASPAS's project pilot sites in Kornati National Park:

Pilot sites bays Kravljačica and Anica in which Kornati National Park carried out pilot transplantation of seagrass *Posidonia oceanica* with an innovative method of transplanting using biodegradable materials. For that activities, selected locations were bays where free anchoring has been present for many years and where *Posidonia oceanica* meadows have been degraded.

Pilot sites bays Kravljačica, Strižnja, Šipnate, Tomasovac – Suha punta and Anica in which Kornati National Park, during June/July 2021 and June 2022, installed a total of 52 environmentally friendly anchoring bouys to reduce the negative impact of free anchoring on the seagrass meadows of *Posidonia oceanica*.

Conclusion

The study visit to Kornati National Park was organized by the Public institution Kornati National Park, one of the RESISTANCE project partners.

The pilot site visit to Kornati National Park has been attended by 24 participants.

During the study visit, journalist from specialized web portal www.morski.hr was present who published the article and edited a short film of the study visit to Kornati National Park, with English subtitles.

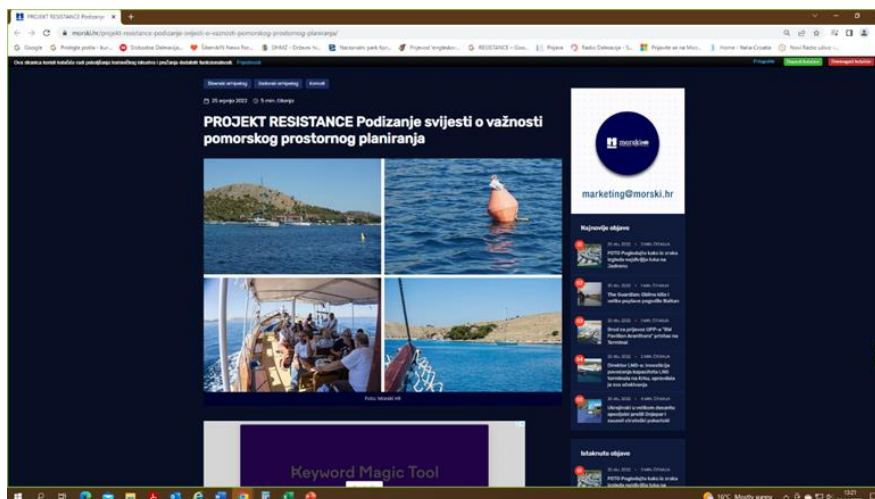
Ms. Melanija Vodanov, Kornati National Park Public Institution representative, made a statement to the media (web portal www.morski.hr).

Photos of study visit to Kornati

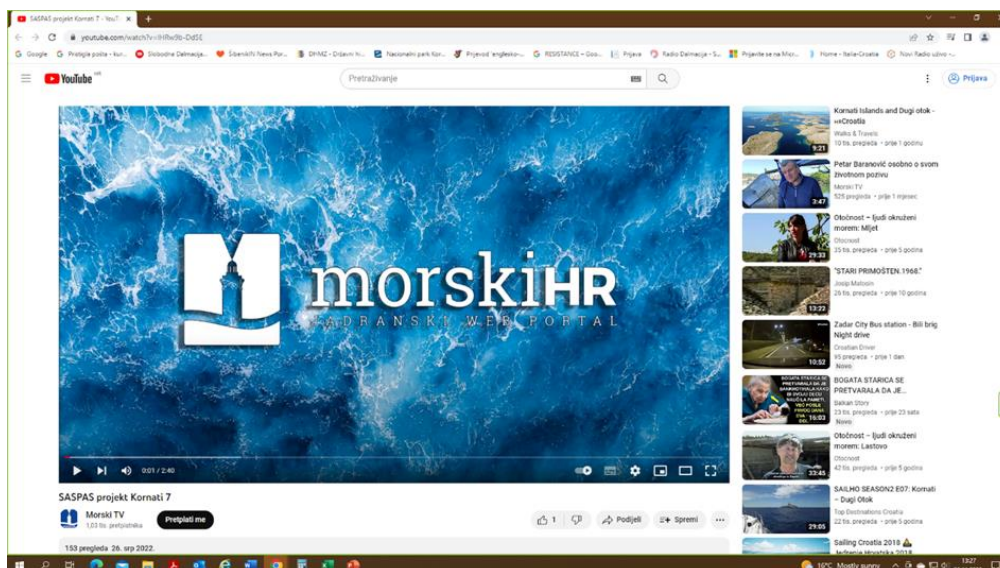




RESISTANCE–STUDY VISIT TO KORNATI NATIONAL PARK – VISIBILITY



<https://www.morski.hr/projekt-resistance-podizanje-svijesti-o-vaznosti-pomorskog-prostornog-planiranja/>



<https://www.youtube.com/watch?v=IHRw9b-Dd5E>

Study visit to the Port of Cesenatico, November 10, 2022

Ca' Foscari University of Venice (pilot site: Port of Cesenatico, Italy)

On November 10th, 2022 the RESISTANCE project pilot visit to the port of Cesenatico took place with all project partners. The Port of Cesenatico was involved in FFL (Fishing For Litter) activities within the past cluster project ML-REPAIR, in strict collaboration with M.A.R.E. Cooperative, a ML-REPAIR project partner. From June 2018 to May 2019 7 vessels of Cesenatico daily remove waste from the sea bed during their fishing activities. Furthermore, fishermen contributed to a quali-quantitative and spatial data recording of Marine Litter (ML) thanks to the “ML-REPAIR app” (recording tablets were provided to them by the project) conceived and managed by M.A.R.E. Cooperative, project partner. Additionally, an area with dedicated bins was set up in the port to allow the correct disposal of collected ML. The RESISTANCE partners were able to witness the ML unloading by 4 vessels still active in FFL activities in Cesenatico after more than 3 years from the end of the ML-REPAIR project. During the visit, the captains of these vessels were interviewed to disseminate and describe their experience in the ML-REPAIR project. Moreover, researchers from Ca' Foscari University of Venice and M.A.R.E. Cooperative showed how to collect scientific data and record ML quantities on the “ML-REPAIR app”.

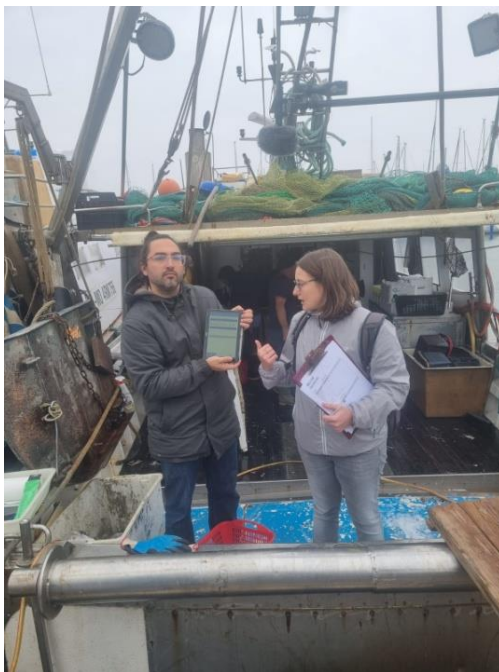
Photos of the pilot site visit to the Port of Cesenatico, November 10, 2022



One of Cesenatico marine Vessels involved in the ML-REPAIR Cluster Project



Interview to a captain about FFL activities in Cesenatico



*Andrea Gugnali (M.A.R.E. Cooperative) and Francesca Barbieri (Ca' Foscari University of Venice)
while describing how to collect data on the ML-REPAIR app*

Study visit to Comacchio, April 18, 2023

University of Ferrara, PP4, organized on 18th of April 2023 the Study visit of the pilot site Comacchio (Ferrara – Italy – Deliverable 3.3.2), inside the Po Delta area (pilot site of NET4mPLASTIC). The representatives of the RESISTANCE partners participated in the event.

The event

The visit in Comacchio was organized by Unife-PP4 (*project NET4mPLASTIC*) as follow:

9:45	Opening and introduction of Study pilot site visit – <i>Comacchio (FE)</i> <i>Palazzo Bellini Via Agatopisto, 5, 44022 Comacchio FE</i>
10:00	RESISTANCE partner meeting <i>Palazzo Bellini Via Agatopisto, 5, 44022 Comacchio FE</i>
11:30	Visit to Museo Delta Antico <i>Via Agatopisto, 2, 44022 Comacchio FE</i>
13:00	Lunch break <i>Ristorante “Bettolino di Foce” Stazione Foce - Valli di Comacchio</i>
15:00	Visit to Spina Village – <i>Valli di Comacchio</i>

Integrated Coastal Zone Management strategies are fundamental to find a formula for moving towards sustainable development. Such strategies are influenced by different factors like historical, cultural, traditional context, etc, but also by biotic and abiotic factors, like geomorphological aspects that have been analyzed during NET4mPLASTIC Project (geomorphological aspects have been considered for the accumulation of marine litter in the Delta Po area). During the visit of the *lagoon of Comacchio*, PP4 has illustrated the historical evolution and management of this wetland,

influenced by the interactions of climate change and human activities (for instance, land reclamation has drastically reduced the extension of the saltmarsh).

After the presentation of the pilot site, the RESISTANCE project meeting occurred at the Palazzo Bellini (Comacchio - FERRARA) and delegates of Municipality of Comacchio welcomed the partnership (report of the meeting has been performed by the LP). Successively, a visit “Delta Antico Museum” of Comacchio was organized in order to illustrate the historical reconstructions of the evolution of the coast and the Po Delta in relation to climatic dynamics and the transformations introduced by man.

The museum presents archaeological evidence of the area, from the protohistoric age to the Middle Ages. Thanks to reconstructions and guide systems it was possible to observe the history of human settlement in the Po delta area. The Po, the numerous navigable channels and the land routes have represented over the centuries important commercial and cultural vectors of communication between the civilizations of the Mediterranean world and continental Europe.

The partnership had the possibility to visit the different section of the museum.

The section dedicated to the *Ancient Delta - territory and environment* - deals with the changes in the natural environment over the millennia, from the formation of the Po valley up to the present day.

The “*Prima di Spina section*”, dedicated to the Final Bronze Age and the Early Iron Age, exhibits the oldest archaeological finds in the area. They relate to human settlements coeval with that of Frattesina di Fratta Polesine (Rovigo), a well-known center for trade between the Mediterranean and continental Europe in the era prior to the appearance of Adria and Spina on the Adriatic.

The section “*Spina, crossroads of the ancient world*” relates to the Archaic and Classical Ages and focuses on the history of the Etruscan city of Spina, an Etruscan port and outpost for trade to and from the Eastern Mediterranean. The relations with Athens and the Greek civilization and with the

Etruscan, Venetian, Celtic populations, the daily life of the inhabitants and the urban structure of a "light" lagoon city are described.

The section "*A territory without a city*" presents the delta area in the Roman age, when it was included in the orbit of Ravenna, which from the Augustan age was an important city and seat of the Imperial Adriatic fleet. The delta is a land of extensive agricultural crops, "industrial" production of bricks and salt, fish farming and viticulture. It maintains the role of reference center for the water and land connection between Rome and the north, the Adriatic and the Balkan regions. The delta was the scene of the exceptional discovery, in 1981 in Comacchio (Valle Ponti), of a Roman ship with the entire load of her, testimony of the age of Augustus and of the globalized world of Rome.

The section "*Comacchio, an emporium on the sand*" tells above all the early medieval era which saw, in the face of the decline of many Roman cities, the birth of new settlements such as Venice and Comacchio, protected by rivers and lagoons along the northern Adriatic coast.

The visit at "Delta Antico Museum" has supported the discussion between partners, about the graphic and digital reconstructions on the effectiveness of museum itineraries (virtual museum) in involving citizens in relation to the multi-system functions of the lagoon areas. In addition, the visit at the museum of Comacchio it was the important about the main theme of the importance of cultural heritage within the context of spatial maritime planning. Moreover, the coastal zone of the Comacchio lagoon is characterized by a high tourism ("*Lido degli Estensi*" and "*Lido di Spina*" for instance), which is an important factor to consider within spatial maritime planning.

In the afternoon, the partners visited the "Open-air Archaeological Park of Spina" that recreates a series of full-scale installations that would allow visitors to enjoy an immersive experience inside the ancient city, a real "museum" at the open air to appreciate the construction techniques, the technical expedients and the living conditions of a lagoon city of about 2500 years ago. The "Open-air Archaeological Park of Spina" was built, as deliverable of project Interreg IT-HR VALUE, and the

visit was also an opportunity to capitalize and to cooperate in the dissemination of the aims of projects of INTERREG Program.

Photos of study visit to Comacchio









Study visit to Ravenna, April 18-19, 2023

Introduction

The goal of the RESISTANCE project is to share the acquired knowledge and experience about the sea and the marine environment, including the coastal and river environment by capitalizing on the results of 7 Interreg projects: **ECOMAP, ECOSS, Net4mPLASTIC, SOUNDSCAPE, DORY, SASPAS and ML-REPAIR.**

Dory project (Capitalisation actions for ADriatic marine enviroNment pRotection and ecosYstem based management) involved Emilia-Romagna and other Italian and Croatian partners; it capitalised the results of the Adriatic ECOSEA project, promoted the adoption of common management models for supporting sustainable fisheries and development of alternative spatial management measures. The pilot activities tested innovative solutions to reduce the negative aquaculture ecological impact of the economic activities and enhance the biodiversity of fish habitats.

The DORY pilot actions were aimed to:

- ✓ Protect commercial species nursery areas and improve biodiversity through the testing and adoption fish stock restoration measures (Friuli Venezia Giulia and Emilia-Romagna Region);
- ✓ Reduce the ecological impact of mussel aquaculture through the testing and adoption of ecologically sustainable farming materials and methods (Veneto Region, Zadar County and Marche Region).

The main outcomes reached were: guidelines for the implementation of sustainable fishing management model, Maritime Spatial Planning tools (DISPLACE) for integrated management of the sea, recommendations and events for policy makers, pilot actions to enhance nursery areas and reduce aquaculture impact, cross-border know-how exchanges, learning labs training events for MPAs managers and technicians.

Emilia-Romagna Region, in line with the European directives, promotes sustainable production models in the fishing and aquaculture sectors along the entire supply chain and guarantees sustainable management of the natural resources of the sea and coasts, identifying actions to help

restore fish stocks and promote sustainable fisheries, stop biodiversity loss, safeguard and improve the conservation status of coastal and marine species, increase the surface area of marine protected areas.

Amongst objectives pursued by Emilia-Romagna we can find the "identification of biological protection areas for the increase of fisheries resources and the exercise of the relative administrative functions, including the regulation of the methods of use" and lett. da), "control of fisheries resources in biological protection areas and zones".

In the marine areas in front of Emilia-Romagna coasts, there are no. 2 Biological Protection Zones and no. 13 Areas of biological protection that create a complex system of regional marine protection; we can find, indeed, Areas and Zones of Biological Protection off the coast of Ravenna.

The one-day Study visit

The Study Visit in Ravenna (Italy) was organized by Emilia-Romagna Region, the project Partner no. 5, as indicated in the application form, and it was a positive occasion to show the good practice in the fisheries and aquaculture sector related to the Dory Project.

The event included a city tour in the late afternoon of the 18th of April 2023: visit to some UNESCO heritage monuments like the San Vitale Basilica, the Galla Placidia's Mausoleum and the Basilica of Sant'Apollinare Nuovo.

At a later time, the dinner was held with some partners in Ravenna at "Ca' De Vèn" for a convivial and social moment, by sharing Italian traditional food and wine.

The core of the Study Visit, after a workshop in the morning at Casa Matha in the center of Ravenna, included the transfer to the Fishing hut on 19th April 2023 ("Capanno da pesca"), traditional site of the fishing heritage, for the light lunch and, in particular, the visit to **Fishing lagoon of "Pialassa di Ravenna"**.

The fishing hut is located in Lido di Dante, specifically, in the river-bed area of united rivers and it is related to Nature centre of the E.N.D.A.S. Association (free association).

The light lunch envisaged an appetizer with “piadina”, a traditional flat bread very tasteful with anchovy and typical cheese of Romagna area “squacquerone”; the first course “spaghetti with clams”, the second course focused on a plate of mussels and the final dessert.

In the afternoon, the group moved to another area to visit the traditional **Fishing lagoon of “Pialassa di Ravenna”**.

Description of Pialassa della Baiona

Pialassa della Baiona is a natural area, a lagoon environment of 10 hectares located between the [Pine Forest of San Vitale](#) and the coastal village of Marina Romea.

It is a system connected by artificial canals and made up of basins subject to tidal oscillation and freshwater ponds right next to the Pine forest of San Vitale. These are kept isolated from the marine environment by the Municipality of Ravenna and the [Po Delta Park](#), in order to protect the forest from saline intrusion and keep a high level of biodiversity.

The reason of the name “Pialassa” seems to come from the combination of the words “*piglia*” (grab) and “*lascia*” (let go). It is originated from the fact that this area hosts a dynamic system of sea water exchange, exploited by professional fishermen – mainly shell-fishermen – and owners of the fishing huts (called ***bilancioni*** or ***padelloni***) that dot the banks and knolls along the bodies of waters.

Conclusion

The visit involved n.10 participants (as shown in the signature list of participants), like the Public institutions from Emilia-Romagna Region, referents from UNIFE (University of Ferrara), project partners (ZDRAVI GRAD - private body, LP-OPCINA PODSTRANA, public body, Onlus Cetacea Foundation). The study visit ended around 6:00 p.m.

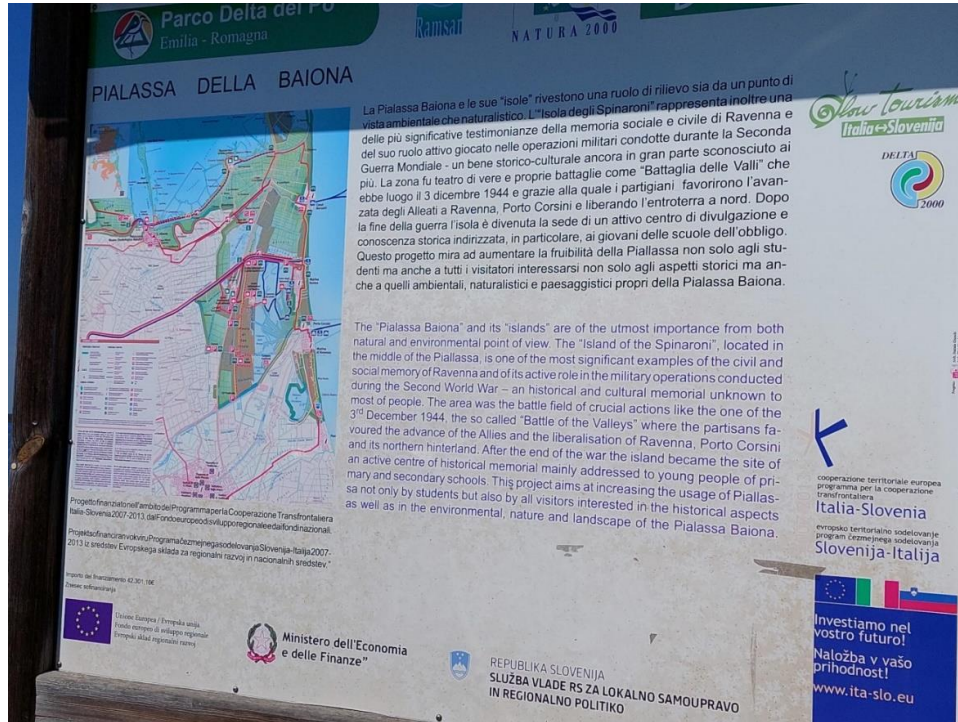


Fishing huts area for light lunch on 19th April



Fishing hut area

VISIT TO THE FISHING LAGOON - PIALASSA DELLA BAIONA (RAVENNA)





Participants on the boat to visit the Fishing lagoon

Study visit to Biševo and the Vis archipelago, June 06 – June 08, 2023

Introduction

The main goal of RESISTANCE project is to share marine monitoring knowledge and experiences in the sea, coastal and river environments by capitalizing the results of ECOMAP, ECOSS, NET4mPLASTIC, SOUNDSCAPE, DORY, SASPAS and ML-REPAIR.

Sea and karst is capitalising ECOSS project and has presented it through RESISTANCE project. The main result of the ECOSS project is the establishment of the ecological observation system in the Adriatic Sea (ECOAdS), shared by Italy and Croatia, which integrates ecological and oceanographic research and monitoring in accordance with Natura 2000 conservation strategies. Drawing on existing facilities, infrastructure and long-term ecological data in the Program area as well as developing specific case studies, ECOSS has enriched marine research capacities to improve conservation status and expand the marine component of the Natura 2000 network. For the first time in this area, a holistic view of marine ecosystem health based on the ODMS (Marine Strategy Framework Directive) will be linked with a traditional nature conservation approach, developing and reinforcing the interconnections and synergies between the ODMS and the HBD (Birds Directive and habitats).

Conclusion

As part of the RESISTANCE project, PI Sea and Karst organized a study visit to the island of Biševo and the Vis archipelago, where the ECOSS project was implemented. The Study Visit was attended by 18 partners who had the opportunity to visit the Blue Cave, Bear's Cave, get to know the island of Biševo and see the new Blue cave visitor center. The results of the ECOSS project were also presented to the partners during sightseeing of the center.

The article was published about this activity: <https://dalmatinskiportal.hr/energija-i-ekologija/projekt-resistance-podizanje-svijesti-o-vaznosti-pomorskog-prostornog-planiranja/172609>

The photos of the study visit to Biševo







CONCLUSION

The study visits contributed to the better comprehension of data and knowledge among institutional organizations that helped to increase the efficiency of marine and coastal management. The One-day Study visits to selected pilot sites: Vis, Kornati, Split, Comacchio, Ravenna, Cesenatico were organized in order to learn about results of involved projects, share achieved good practices showing constructions, installations, tools, and methodologies implemented in certain areas. All the information obtained at the study visits were used for the development of the documents that can help in reducing the high pressure on the marine environment: the Exploitation Plan, Flagship Paper and Guidelines sharing best practices for MSP.