

2014 - 2020 Interreg V-A
Italy - Croatia CBC Programme
Call for proposal 2019 Strategic

CoAStal and marine waters integrated monitoring systems for ecosystems proteCtion AnD managemEnt

CASCADE

Project ID: 10255941

Priority Axis: Environment and cultural heritage

Specific objective: Improve the environmental quality conditions of the sea and coastal area by use of sustainable and innovative technologies and approaches

D5.2.2

Definition of guidelines and template for the organization of at least 2 workshops (also virtual) for each Pilot for stakeholders engagement (at least 15 participants for each workshop) and capacity building on restoration actions supporting endangered species

PP in charge: PP8 – Delta 2000

Part 4

Final version

Public document

June, 2023

Project acronym	CASCADE
Project ID number	10255941
Project title	CoAStal and marine waters integrated monitoring systems for ecosystems protection AnD managemEnt
Priority axis	3 - Environment and cultural heritage
Specific objective	3.2 - Contribute to protect and restore biodiversity
Strategic theme	3.2.1 - Marine environment
Word Package number	WP5
Word Package title	Pilots for endangered species restoration and Integrated coastal/marine management system
Activity number	Activity 5.2
Activity title	Restoration actions supporting endangered species
Partner in charge	PP8 – Delta 2000
Partners involved	All PPS

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**CoAStal and marine waters integrated monitoring systems for
ecosystems proteCtion AnD managemEnt
CASCADE**

Priority Axis: Environment and cultural heritage
Specific objective: Improve the environmental quality conditions of the sea and coastal area by
use of sustainable and innovative technologies and approaches

Event follow up report



Work Package:	<i>5. Pilots for endangered species restoration and Integrated coastal/marine management system</i>
Activity	5.2 – Restoration actions supporting endangered species and 5.3
Deliverable:	D5.2.2 Definition of guidelines and template for the organization of at least 2 workshops (also virtual) for each Pilot for stake holders engagement (at least 15 participants for each workshop) and capacity building on restoration actions supporting endangered species. Workshops will be organized by partners involved in the pilots in collaboration with the PP leading and participating to each Pilot. and D.5.3.2 Organization of at least 2 workshops (also virtual) for each Pilot for stakeholders engagement (at least 15 for each workshop) and capacity building on integrated coastal/marine management systems.

Project Partner:	RBi Rudjer Boskovic Institute
Name of event:	Education and training organizations as well as universities and research institutes
Date:	30. 09. 2022
Event type:	Workshop with the stakeholders
Event venue:	In presence – Institut Rudjer Bosković, Center for marine research Rovigno
Short description of the event:	15 participants participated on workshop and lectures in Center for Marine reserach (pilot 8) and had lecture on biodiversity, jelly fish, food web and modern methods in phytoplankton reasearch
Speakers speeches, brief summary and conclusion:	Dr.sc. Martin Pfannkuchen, dr.sc. Daniela Maric Pfannkuchen, dr.sc. Tjaša Kogovšek, dr.sc. Ana Baričević, Ivan Vlašićek
Role of CASCADE partner in the event:	The lecture was aimed at publicizing the Institute history, local research themes and presentation of international projects the INTERREG project CASCADE. Focus was on biodiversity. With te emphasis to habitat loss, endangered species Pinna nobilis and the invasive species entering the Adriatic sea, ecc.
Type of audience/target groups involved:	The event involved fisherman.

Target groups (AF Section F)	Target groups reached in this event	Details of involved target
Stakeholders, fisherman	1	15 fisherman participated to the event

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Annexes:

- 1_Photos of the lecture and laboratory tour
- 2_Presentation of CASCADE Project;
- 3_list of the participants

Annex 1 Photos












Annex 2 Presentation

Radionica monitoring fitoplanktona i otkrivanje skrivenog biodiverziteta u pilot području 8


CASCADE | PP2 | Ruđer Bošković Institute
Center for marine research
Doc. Biserka Marić Maslić
Workshop and course
10/11 | 16/11/2023 | 10.09.2023



1891
Berlin's zoological garden and aquarium established first station in Rovinj to collect plants and animals, as Trieste, which was used previously, was already polluted at that time...

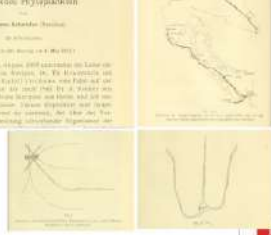


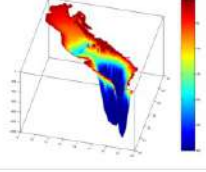
1900
Soon marine scientists were attracted by new facilities with electricity, running sea and freshwater, research vessels, aquarium...



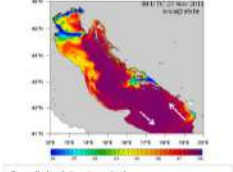
After more than 130 years, renovation continues in the same partially reconstructed building with a modernized fleet of three Rv, housing 08...

Adriatic Phytoplankton
Dr. Bruno Adaković
1910





Regarding bathymetry and latitude Adriatic can be divided in three distinct sections: the **southern**, **central** and **southern part**.
Northern part is very shallow (less than 50m)



Overall circulation is cyclonic
Eastern Adriatic Current (EAC) – NW flowing
Western Adriatic Current (WAC) – SE outflowing

2014-2020 INTERREG V-A ITALY - CROATIA CBC PROGRAMME - STRATEGIC PROJECTS

CASCADE - Croatia and marine sector integrated ecosystem system for ecosystems protection and management

- Priority Axis 1: Environment and Cultural Heritage
- SO 1.2: Contribute to protect and restore biodiversity
- Strategic theme 1.2.3: Marine environment

Improve the environmental quality conditions and biodiversity of coastal, marine, and inland water and ecosystems contributing sustainable and innovative strategies and approaches related to integrated monitoring, monitoring system and restoration

TOPIC-BY- TOPIC APPROACH to identify 11 strategic themes which represent the main challenges identified during the implementation of the programme

14 months (01.03.2020 - 31.12.2020)
Total contribution: 5,832,147.00 €

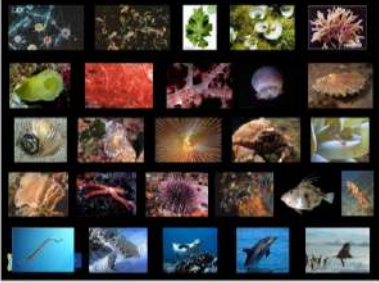
TERRITORIAL CHALLENGES

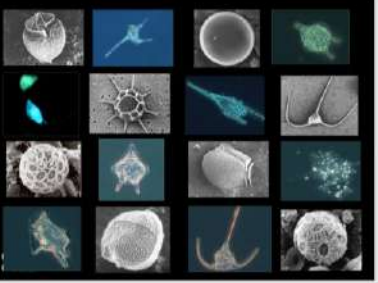
Adriatic Sea - one of the most vulnerable natural ecosystems of the programme area

semi-enclosed basin which exacerbates the impacts of natural and man-made hazards on ecosystems and socio-economic activities

FACTORS

- increased coastal population and their lifestyle changes
- intensive economic activities
- fluvial inputs from large drainage basins
- discharges from urban and transportation activities
- eutrophication
- alien species invasions
- climate change effects
- etc.





Fitoplankton je ustalan naziv za sve slobodno-plivajuće jednostanične alge oceana i mora širom svijeta.

Najbriže grupe alga koje čine najbrižu fitoplanktonsku zajednicu Jadranskog mora su **dijatomije**, **dinoflagelati**, **solcifikatori**

Njihove masovne pojave naziva se i cvjetanje fitoplanktona (proljeće, jesen).
A mogu dostići toliku brojnost da oboje morskou vodu (zeleno, narandžasto...)

Fitoplankton nam može kazati mnogo o tome što se zbiva u morskom okolišu. Fitoplankton je jedan od najvažnijih bioloških indikatora u cijelom morskom ekosistemu.



Diatomeje su građene od silikorne kućice a dvije lučurice koje se preklapaju poput kugli i povećava izdržljivost u protivnim okolnostima.

Diatomeje dolaze u dva oblika. Centrice imaju radijalnu simetriju, dok su perarke izdužene s bilateralnom simetrijom. Kad jedna se skuplja u lonce koji im omogućuju održavanje pozicije u vodenom stupcu te sprječava tonjenje iz osvijetljene zone. Velikina stanice od 5 - 1000 µm.




13

Dinoflagelati imaju dva trčca, koje upotrebljavaju za kretanje kroz morsku vodu. Oni su najčešće sferni organizmi te rijetko lučne lance.

Neki dinoflagelati izlučuju toksine. Prihodom cvjetanja kumulativni efekt toksina može utjecati na morske organizme uzrokujući masovno umiranje ribe i avifaune. Dvaćeno životna trovanje (DST) uzrokuju dinoflagelati roda *Dinophysis*.





14



Coccolitofori su trčca najmanja skupina fitoplanktona u Adriatskom moru.

Njihove su stanice pokrivena kalcijem pločicama raznih oblika, kalcijem (CaCO₃). Coccolitofori također uzrokuju cvjetanja mora, prevarajući boju mora u mliječno bijelu.




15





16

The molecular life of the Adriatic Sea

ADRI LIFE Phytoplankton ADRI LIFE HFZZ





17

• Istraživanja fitoplanktona iz Jadrana DANAS






18

Revealing biodiversity with molecular methods

- Isolation genetic DNA**
 - From some cultured organisms
 - Or from community
- Replication of target genes**
 - PCR methods
 - DNA barcodes (12S, 17S and 6S)
 - Barcode of life database
- NGS sequencing**
 - Barcoding
- bioinformatics**
 - BLAST, GenBank, MEGAT software
 - Reference database: Fish, In-Sp, PIG, QOLark, CN database

• Fast and good methods for the identification of species community
 • Good additional information to old paper identification methods

19

Phylogeny



20

Alien species

- ✓ Newly described
- ✓ Newly introduced

21

Invazivne vrste



22

INVAZIJA NA JADRAN

Tropska vrsta postaje - naša: riba pauk ima otrov u perajama i ubod joj je bolan, nema prirodnih neprijatelja i vrlo je štetna po ekosustav



23

Invazivne vrste

Latinski naziv: *Callinectes sapidus* Rathbun

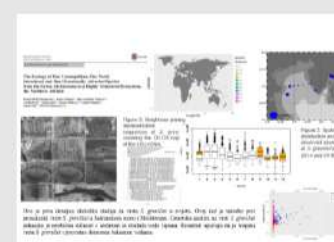
Ogiba školjčak je različito evropske vrste, ali se najčešće nalazi u području Jadrana. Ova vrsta je najbrže rastuća i najviše se širi. Njezina masa može biti veća od 0,5 kg, a njegova duljina može biti do 10 cm. Ova vrsta je vrlo otporna na hladnoću i može preživjeti u hladnoj vodi. Dosegne masu od 0,15 - 0,5 kilograma.

Negativni učinci:

Ekonomski: Iznosi se za namirnicu, ali može biti štetna za lokalne zajednice.

Ekološki: Iznosi se za namirnicu, ali može biti štetna za lokalne zajednice.

24



25

During the September - October another species from the family Callinectidae reaches high abundance. *Callinectes sapidus* is usually identified and is mainly characterized by a large aperture between cells in the framework, with specific colonies which are formed by polyacanthate skeletal network.

26

Morphological analysis confirmed following species as dominant:

- Pseudischnops* sp.
- P. pseudoscutellata*
- P. purpurata*
- P. fasciata*
- P. callinectes*
- P. mutabilis*

27

CELEBRAMO 130 ANNI



28

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Workshops follow up report

***WP 5 | Act. 5.2 Restoration actions supporting endangered species &
Act. 5.3 Integrated coastal/marine management systems***



Work Package:	<i>5. Pilots for endangered species restoration and Integrated coastal/marine management system</i>
Activity	<i>Indicate if: 5.2 - Restoration actions supporting endangered species 5.3 – Integrated coastal/marine management systems</i>
Deliverable:	<i>Indicate if: 5.2.1 - Organization of at least 2 workshops (also virtual) for each Pilot for stakeholders engagement (at least 15 participants for each workshop) and capacity building on restoration actions supporting endangered species 5.3.2 - Organization of at least 2 workshops (also virtual) for each Pilot for stakeholders engagement (at least 15 for each workshop) and capacity building on integrated coastal/marine management systems</i>

Project Partner:	<i>P9 – PP Sea and Karst</i>
Name of event:	<i>Presentation of the results of the EU project CASCADE for the area of ecological network Natura 2000 - Estuary of the Cetina River (HR3000126)</i>
Date:	<i>8th of May 2023</i>
Event type:	<i>Workshop – an organized event Specify if external or organized event</i>
Event venue:	<i>City of Omiš, Hotel Plaža</i>
Short description of the event:	<i>Implemented activities of monitoring and assessment of the state of key marine habitats and species were presented, with the aim of encouraging integrated management of the coastal zone and the underwater area of the Cetina estuary Natura 2000 site. In the past three years, starting from CASCADE project approval, Sea and Karst designed and tested monitoring program for Cetina estuary with focus on one of its most representative, key habitat types: 1110 Sandbanks which are slightly covered by the sea water all the time represented by two key benthic habitat formers: <i>Cymodocea nodosa</i> and <i>Pinna nobilis</i>. The purpose of the event was to familiarise local and regional authorities responsible for issuing permits for interventions in maritime domain with the state of natural values of the Cetina estuary and to discuss conservation measures.</i>
Speakers speeches, brief summary and conclusion:	<i>The programme of the event with speakers was following: 10:00 – 10:15 Introduction – natural values of the Cetina estuary, Jelena Kurtović Mrčelić, Sea and Karst 10:15 – 11:00 Monitoring and state of conservation of <i>Cymodocea nodosa</i> meadows, Silvija Kipson, Sea Fan Ltd and Branimir Radun, OIKON Ltd</i>

11:00 – 11:15 Monitoring and state of conservation of the Noble Pen shell *Pinna nobilis*, Jelena Kurtović Mrčelić, Sea and Karst

11:15 – 11:45 Coffee break

11:45 – 12:15 Monitoring and state of conservation of the coral reef *Cladocora caespitosa*, Silvija Kipson, Sea Fan Ltd

12:15 – 12:45 Monitoring the dynamics of sand in the area of Duće and Omiš municipalities and the role of marine flowering plants in the accumulation and movement of sediment, Kristina Pikelj, PMF Zagreb

12:45 – 13:30 Conservation measures and discussion

All speakers presented results of monitoring programmes carried out thanks to CASCADE project financial support. Details all of the monitoring programmes, including their setting-up and testing are available in CASCADE project reports such as D 3.3.1 Report on design the optimal observing system for marine coastal environment characterization and D 4.1.2 In situ observing campaigns. These programmes were complemented by presentation of Kristina Pikelj from the Faculty of Science, Zagreb which has long experience on monitoring sediment of beaches including those of Cetina estuary area. Sea and Karst also presented restoration actions supporting critically endangered Noble Pen shell which details are available in CASCADE project report D 5.2.1 Report on implemented restoration test and soft actions supporting endangered species. At the end a presentation of conservation measures proposed by project external experts and Sea and Karst expert service was made and discussed between participants. Stakeholders agreed on proposed measures however the problem of the legal framework, which excluded the management body (e.g. Sea and Karst) during the planning and approval of interventions in the maritime domain, proved to be crucial in the implementation of conservation measures in this area. Only a good knowledge of the situation on the ground, which we now have thanks to the CASCADE project, and communication and cooperation between different authorities, can overcome the problem of a deficient legal framework, although in the long term it needs to be changed, by involving more and giving greater powers to the management authorities of Natura 2000 sites. Above all, it is necessary to ask the profession, whether it is the Natura 2000 site management authority, or experts and scientists who work in the area in question. All the suggestions made by the participants will be incorporated into the recommendations and relevant reports/deliverables of the project, and will be forwarded to the competent authorities after the completion of the project: the Ministry of Economy and

	Sustainable Development, the Split-Dalmatia County , the City of Omiš and Dugi rat Municipality.
Role of CASCADE partner in the event:	Public institution Sea and Karst organized the workshop.
Type of audience/target groups involved:	Representatives of the City of Omiš Representatives of the Split-Dalmatia County Representatives of the local and county tourist boards Representatives of the national and local companies Representatives of the diving centres, fishing companies, universities, and research institutes

Target groups (AF Section F)	Target groups reached in this event	Details of involved target
General public	0	
Local, regional and national public authorities	14	Representatives of the City of Omiš Representatives of the Split-Dalmatia County Representatives of the local and county tourist boards Representatives of the local and national companies
Associations	2	Diving centres
NGOs		
Education and training organizations as well as universities and research institutes	4	

Annexes:

- Photos from events (it is preferable to have few photos where CASCADE logo is visible - on presentation, poster, roll-up, promotional materials etc.),
- Screenshots, Invitation, Agenda, Minutes, Participation list (if available), Abstract, etc.

Explanation:

By the end of project, in LIBRARY and TOOL section of project website must upload:

- Reports of all meetings,
- Reports of all events organized (local events, etc.),

- Reports of participation in external events,
- PDF versions of promotional materials,
- Reports with links to websites, media relations and press releases issued.

ANNEXES:

1. INVITATION AND PROGRAM OF THE WORKSHOP



JAVNA USTANOVA MORE I KRŠ

Poziva Vas na:

Prezentaciju rezultata EU projekta CASCADE za područje ekološke mreže Natura 2000 - Ušće rijeke Cetine (HR3000126)



KADA
08.05.2023., 10:00



GDJE
Hotel Plaža, dvorana Mirabella

Program rada

- 10:00 – 10:15 Uvod – prirodne vrijednosti Ušća rijeke Cetine
Jelena Kurtović Mrbelić, More i krš
- 10:15 – 11:00 Praćenje i stanje očuvanosti naselja morske cvjetnice
Silvija Kipson, Sea Fan doo i Branimir Radun, OIKON doo
- 11:00 – 11:15 Praćenje i stanje očuvanosti plemenite periske
Jelena Kurtović Mrbelić, More i krš
- 11:15 – 11:45 Pauza za kavu
- 11:45 – 12:15 Praćenje i stanje očuvanosti koralnog grebena
Silvija Kipson, Sea Fan doo
- 12:15 – 12:45 Praćenje dinamike pijesaka na području općina Duće i Omiš i uloga morskih cvjetnica u nakupljanju i premještanju sedimenta
Kristina Pikelj, PMF Zagreb
- 12:45 – 13:30 Mjere očuvanja i rasprava

European Regional Development Fund



2. PARTICIPATION LIST

3. PHOTOS





4. PRESS RELEASE

Predstavljeni rezultati aktivnosti praćenja ključnih morskih staništa i vrsta na području Ušća rijeke Cetine u okviru EU projekta CASCADE

Danas je u Omišu, u organizaciji županijske ustanove More i krš, održana radionica na kojoj su predstavljene realizirane aktivnosti praćenja i ocjene stanja ključnih morskih staništa i vrsta, u svrhu poticanja integriranog upravljanja obalnim pojasom i podmorjem područja ekološke mreže Ušće rijeke Cetine, a koje doprinose obnovi staništa ugroženih vrsta.

Radionica se održala u sklopu EU projekta CASCADE (integrirani sustav monitoringa obalnih i morskih ekosustava radi njihove zaštite i upravljanja) koji se financira iz Europskog fonda za regionalni razvoj – Interreg program Italija – Hrvatska 2014-2020. Svoja izlaganja imali su vanjski suradnici projekta Silvija Klipson (Sea Fun doo) i Branimir Radun (Oikon doo), te Jelena Kurtović Mrčelić u ime More i krš. Gost i predavač na radionici bila je Kristina Pikelj ispred PMF-a Zagreb koja već dugi niz godina prati dinamiku pijesaka na ovom području.

Morsko područje ekološke mreže Natura 2000 Ušće rijeke Cetine, pilot je područje EU projekta CASCADE i u protekle tri godine koliko je projekt trajao, More i krš je uspostavila praćenje stanja područja s posebnim osvrtom na 3 strogo zaštićene vrste, morsku cvjetnicu naziva čvorasta morska resa (slična posidoniji), plemenitu perisku te busenasti koralj, kao i praćenje ekoloških uvjeta mora (temperatura, slanost i sl.). Posebno se pratila kritično ugrožena plemenita periska, a primjerak žive jedinke pronađen je upravo u Omišu, 2022. g. što je čini 1 od 18 potvrđenih živih jedinki u Jadranu.

Branimir Radun, čija je tvrtka bila zadužena za analizu i procjenu pokrovnosti čvoraste morske rese zaključio je kako je u 10 godina (2011.-2021.) proširenje pokrovnosti više za 24% u odnosu na 2011. g. (10,39 hektara) što bi na godišnjoj razini bilo povećanje između 2-3%. Zaključio je kako postoje uvjeti za njeno obnavljanje, a kako znamo da su morske cvjetnice pluća Jadrana i stanište plemenite periske ne treba govoriti koliko je ova informacija značajna.

Stanje s plemenitom periskom, endemom Mediterana, nije dobro. Nakon mortaliteta uzrokovanog *Haplosporidium pinnae* parazitom, pronađen je vrlo mali broj živih jedinki, ali nada u njenu obnovu i pronalazak novih jedinki ne jenjava. Osim što je pročištač mora, ona je i stanište brojnim organizmima, epibiontima kao što su spužve, alge, ježinci, mekušci i dr. – nastavila je izlaganje Jelena Kurtović Mrčelić. Uz stručne aktivnosti praćenja populacije plemenite periske, ustanova je u sklopu CASCADE projekta provela i edukativne radionice s djecom iz O.Š. J. Pupačić iz Omiša koji su bili jako zainteresirani i oduševljeni te će svoj entuzijazam i osviještenost prenijeti i u svoje okruženje.

Silvija Klipson nastavila je izlaganje o još jednom endemu Sredozemnog mora, koji se nalazi na ovom omiškom području, u Maloj luci, a zove se busenasti koralj, također strogo zaštićena vrsta. Jako sporo raste, 2,5-3 mm godišnje, a poseban je po tome što može stvarati koraljne grebene. Jedan od rijetkih grebena u Jadranu je onaj u Maloj luci koji se prostire na dubini od 24-28m. Nakon analize grebena, Silvija je istakla kako stanište degradira, koralj ugiba zbog povišene temperature mora i mehaničkih oštećenja, a najdublji dio grebena je najbolje očuvan, 87% živih koralja nalaze na ovom dijelu grebena.

O praćenju dinamike pijesaka na području općine Duće i grada Omiša te o ulozi morskih cvjetnica u nakupljanju i premještanju sedimenta govorila je Kristina Pikelj sa zagrebačkog PMF-a pa se tako moglo saznati kako morske cvjetnice stvaraju bistru vodu, ublažavaju

valove, zadržavaju sediment te na taj način čuvaju obalu od erozije. Većina naše obale je od tvrdih karbonatnih stijena, a samo manji dio je građen od mekših klastita (fliš i sl.), dok su plaže iznimka, a ne pravilo. U analizi sedimenta s plaže u Dućama zaključilo se kao se radi o šljunkovitom pijesku, u prosjeku 89% karbonatnom pijesku, dominiraju komadići stijena te su u manjoj mjeri zastupljeni ostaci morskih i fosilnih organizama. Kod dohranjanja obale i plaža, jako je važno uzeti u obzir karakteristike same obale odnosno individualnu geomorfologiju područja i orijentaciju plaže. Naročito bitni za skladištenje i očuvanje sedimenta su naslage morske vegetacije (poput listova čvoraste morske rese) koja se ne bi smjela uklanjati s plaže.

Nakon prezentacija predložene su mjere i preporuke za očuvanje staništa i vrsta područja ekološke mreže Ušće rijeke Cetine o kojima se raspravljalo s predstavnicima Grada Omiša, županijskih upravnih odjela, ostalih javnih tijela, turističkih zajednica, ribolovnih društava, ronilačkih centara i ostalim sudionicima. Da ovakvih radionica treba biti više i da svi dionici trebaju djelovati zajedno jednoglasno su se složili. Mjere i preporuke biti će sastavni dio konačnog izvješća projekta CASCADE te upućene svim nadležnim tijelima na postupanje.

PUBLISHED PRESS RELEASE IN MEDIA – LINKS

<https://dalmatinskiportal.hr/energija-i-ekologija/cascade-predstavljani-rezultati-aktivnosti-pracenja-kljucnih-morskih-stanista-i-vrsta-na-podrucju-usca-rijeke-cetine/168485>

<https://www.dalmacijadanas.hr/predstavljani-rezultati-aktivnosti-pracenja-kljucnih-morskih-stanista-i-vrsta-na-podrucju-usca-rijeke-cetine-u-okviru-eu-projekta-cascade/>

<https://slobodnadalmacija.hr/om/vijesti/ne-jenjava-nada-u-oporavak-periski-predstavljani-rezultati-pracenja-podrucja-usca-rijeke-cetine-1288152>


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Priority Axis: Environment and cultural heritage

Specific objective: Improve the environmental quality conditions of the sea and coastal area by
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**Event follow up report WORKSHOP
Restoration actions of coastal
ecosystems (5.2 – Torre Cerrano
Pilot 10)**



Work Package:	<i>5. Pilots for endangered species restoration and Integrated coastal/marine management system</i>
Activity	<i>5.2 - Restoration actions supporting endangered species</i>
Deliverable:	<i>5.2.2 - Organization of at least 2 workshops (also virtual) for each Pilot for stakeholders engagement (at least 15 participants for each workshop) and capacity building on restoration actions supporting endangered species</i>

Project Partner:	<i>University of Molise Partner 13 – Pilot 10</i>
Name of event:	WORKSHOP Azione di recupero degli ecosistemi costieri a supporto delle specie minacciate
Date:	04/05/23 10:30-12:30 PM (CET time)
Event type:	<i>workshop</i>
Event venue:	<i>Torre del Cerrano Marine Protected Area, Pineto (TE)</i>
Short description of the event:	The Workshop organized by CASCADE staff of UNIMOL partner was inserted in a week context with several workshops from different technical-scientific projects of environmental restoration for researchers, technicians, local economic stakeholders, naturalistic associations and NGO's.
Speakers speeches, brief summary and conclusion:	Introduction about restoration actions developed in the pilot area MPA Torre del Cerrano to create habitats for local birds and for migratory species of Community interest.
Role of CASCADE partner in the event:	ORGANIZER
Type of audience/target groups involved:	Scientific stakeholders and local economic stakeholders.

Target groups (AF Section F)	Target groups reached in this event	Details of involved target
General public	1	Citizen
Local, regional and national public authorities		
Associations	1	representative of Guide del Cerrano, local naturalistic association for the local protection of threatened species.
NGOs		
Education and	5	researchers and students of University of Molise.

training organizations as well as universities and research institutes		
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Annexes:

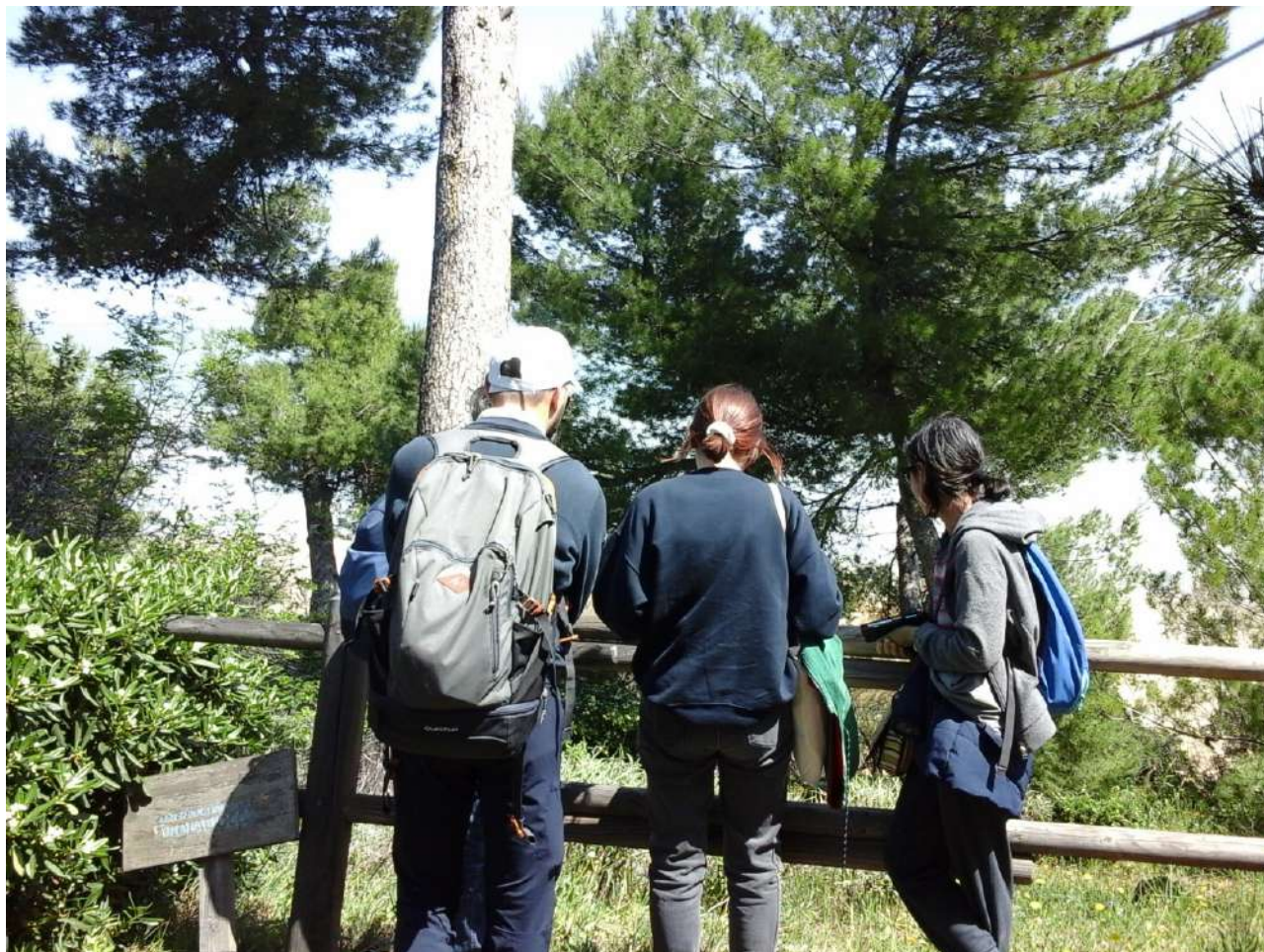
- Photos from events (it is preferable to have few photos where CASCADE logo is visible - on presentation, poster, roll-up, promotional materials etc.),
- Screenshots, Invitation, Agenda, Minutes, Participation list (if available), Abstract, etc.

Explanation:

By the end of project, in LIBRARY and TOOL section of project website must upload:

- Reports of all meetings,
- Reports of all events organized (local events, etc.),
- Reports of participation in external events,
- PDF versions of promotional materials,
- Reports with links to websites, media relations and press releases issued.









WORKSHOP Azione di recupero degli ecosistemi costieri a supporto delle specie minacciate

Presentazioni e tour guidato nelle dune costiere e la costa dell'Area Maria Protetta Torre del Cerrano (Pilot 10).



Giovedì 4 Maggio 2023, ore 10:30



Raduno presso AMP Torre del Cerrano - Villa Filiani, Pineto (TE)

Attività previste:

- Esempio di azioni di conservazione delle aree dunali nell'AMP Torre del Cerrano
- Azioni di recupero delle dune costiere
- Attività di citizen science- Wild Coast CASCADE.

Relatore: dott.ssa Maria Carla DE FRANCESCO

Università degli Studi del Molise

L'attività avrà la durata di circa due ore.

Prenotazione al numero 339 75 17 592

Progetto CASCADE (CoAStal and marine waters integrated monitoring systems for ecosystems protection and management) - INTERREG V-A Italy-Croatia CBC 2014-2020 European Regional Development Fund



UNIVERSITÀ
DEGLI STUDI
DEL MOLISE

In collaborazione con:



Torre
del Cerrano
Area Marina Protetta



Partner associati:


2014 - 2020 Interreg V-A
Italy - Croatia CBC Programme
Call for proposal 2019 Strategic

**CoAStal and marine waters integrated monitoring systems for
ecosystems proteCtion AnD managemEnt
CASCADE**

Priority Axis: Environment and cultural heritage

Specific objective: Improve the environmental quality conditions of the sea and coastal area by
use of sustainable and innovative technologies and approaches

**Event follow up report WORKSHOP
Restoration actions of coastal
ecosystems (5.2 – Torre Cerrano
Pilot 10)**



Work Package:	<i>5. Pilots for endangered species restoration and Integrated coastal/marine management system</i>
Activity	<i>5.2 - Restoration actions supporting endangered species</i>
Deliverable:	<i>5.2.2 - Organization of at least 2 workshops (also virtual) for each Pilot for stakeholders engagement (at least 15 participants for each workshop) and capacity building on restoration actions supporting endangered species</i>

Project Partner:	<i>University of Molise Partner 13 – Pilot 10</i>
Name of event:	WORKSHOP Azione di recupero degli ecosistemi costieri a supporto delle specie minacciate
Date:	12/12/22 5:00-5:45 PM (CET time)
Event type:	<i>workshop</i>
Event venue:	<i>Torre del Cerrano Marine Protected Area Villa Filiani, Pineto (TE)</i>
Short description of the event:	The Workshop organized by CASCADE staff of UNIMOL partner was inserted in a week context with several workshops from different technical-scientific projects of environmental restoration for researchers, technicians, local economic stakeholders, naturalistic associations and NGO's.
Speakers speeches, brief summary and conclusion:	Introduction about restoration actions developed in the pilot area MPA Torre del Cerrano to create habitats for local birds and for migratory species of Community interest.
Role of CASCADE partner in the event:	ORGANIZER
Type of audience/target groups involved:	Technical-scientific stakeholders and local economic stakeholders.

Target groups (AF Section F)	Target groups reached in this event	Details of involved target
General public	2	local economic stakeholder.
Local, regional and national public authorities		
Associations	1	representative of main naturalistic associations (WWF, Legambiente and so on) for the local protection of

		threatened species.
NGOs		
Education and training organizations as well as universities and research institutes	12	researchers and students of University of Molise.

Annexes:

- **Photos** from events (it is preferable to have few photos where CASCADE logo is visible - on presentation, poster, roll-up, promotional materials etc.),





- Screenshots, **Invitation, Agenda**, Minutes, Participation list (if available), Abstract, etc.



WORKSHOP

Azione di recupero degli ecosistemi costieri a supporto delle specie minacciate

 Lunedì 12 dicembre 2022, ore 17:00

 AMP Torre del Cerrano - Villa Filiani, Pineto (TE)

Titolo
Analisi dei dati faunistici per una corretta gestione dell'AMP Torre del Cerrano

Relatore: dott. Mauro FABRIZIO
Università degli Studi del Molise

Progetto CASCADE (CoAStal and marine waters integrated monitoring systems for ecosystems protection AND managemEnt) - INTERREG V-A Italy-Croatia CBC 2014-2020
European Regional Development Fund



Partner associati:



Link

http://envixlab.unimol.it/cascade-amp_torrecerrano/

The screenshot shows a web browser displaying the website envixlab.unimol.it/cascade-amp_torrecerrano/. The page features the logo for EnviXLAB (ricerca | progetti | didattica) and the Università degli Studi del Molise. A navigation menu includes HOME, DIDATTICA, TEAM, EVENTI, PROGETTI, NEWS, RICERCA, PUBBLICAZIONI, SONDAGGI, and COFFEE TIME. The main content area displays a news article titled "CASCADE e la Scuola di Turismo Ambientale dell'Area Marina Protetta Torre Cerrano" dated 4 gennaio 2023. The article includes a large photograph of a group of people holding a banner. To the right, there is a Facebook widget for "Life Maestrale Nat1000" and a "NEWS" sidebar with several related articles, including "CASCADE e la Scuola di Turismo Ambientale dell'Area Marina Protetta Torre Cerrano", "NATURAL BIODIVERSITY FUTURE CENTRE", "Spring School Smart Adria Blue Growth", "EVENTI CASCADE A TORRE DEL CERRANO APRILE 2022", and "SMART ADRIA BLUE GROWTH verso la riduzione della plastica monouso". The browser's taskbar at the bottom shows various application icons.

2014 - 2020 Interreg V-A
Italy - Croatia CBC Programme
Call for proposal 2019 Strategic

**CoAStal and marine waters integrated monitoring systems for
ecosystems proteCtion AnD managemEnt
CASCADE**

Priority Axis: Environment and cultural heritage

Specific objective: Improve the environmental quality conditions of the sea and coastal area by use of sustainable and innovative technologies and approaches

Workshops follow up report

***WP 5 | Act. 5.2 Restoration actions supporting endangered species &
Act. 5.3 Integrated coastal/marine management systems***



Work Package:	<i>5. Pilots for endangered species restoration and Integrated coastal/marine management system</i>
Activity	<i>Indicate if: 5.2 - Restoration actions supporting endangered species 5.3 – Integrated coastal/marine management systems</i>
Deliverable:	<i>Indicate if: 5.2.1 - Organization of at least 2 workshops (also virtual) for each Pilot for stakeholders engagement (at least 15 participants for each workshop) and capacity building on restoration actions supporting endangered species 5.3.2 - Organization of at least 2 workshops (also virtual) for each Pilot for stakeholders engagement (at least 15 for each workshop) and capacity building on integrated coastal/marine management systems</i>

Project Partner:	PP 15 – Public Institution Sea and Karst
Name of event:	Presentation of the University of Split teaching bases
Date:	06.12.2022.
Event type:	Workshop
Event venue:	University of Split, amfiteatar A 1.2., Z3F
Short description of the event:	The event gathered together all University of Split teaching bases where students perform internship during their studies. On that occasion Public Institution Sea and Karst presented EU project CASCADE activities with special focus on restoration actions and integrated coastal and marine management of Cetina Estuary.
Speakers speeches, brief summary and conclusion:	<p>In this section, please for the workshop of D.5.2.1 and D.5.3.2 please include Information about;</p> <ol style="list-style-type: none"> Speakers and moderator, if present: Jelena Kurtović Mrčelić (project manager in PP15) presented CASCADE project activities with support of an PPT presentation called “Restoration actions supporting endangered species and Integrated coastal/marine management systems”. Information, knowledge and dissemination: Contents and themes presented and discussed with indication of speakers (name surname if possible) about: <ul style="list-style-type: none"> Presentation about the activities on topic of restoration actions supporting endangered species for act. D.5.2.1 Presentation about the activities on topic of integrated coastal/marine management systems for the D.5.3.1 <p>As through this WS we targeted researchers and students, the discussion was mainly about different methodologies and the possibilities for successful recovery of <i>Pinna nobilis</i> population. We had less discussion on integrated</p>

	<p>coastal zone management which will be discussed more during the next WS intended to local government.</p> <ol style="list-style-type: none"> 3. Inputs and suggestions by the stakeholders and participants, with a brief explanation about the inputs of stakeholders involved, their proposals, etc. Students are very interested in the work we carry out on Pinna nobilis. Right from the beginning they are involved in our CASCADE project activities. They offer support in larval collectors' installation and removal. They expressed their interest to continue supporting our work in 2023. 4. Evidence if the inputs and suggestions (point above) are been/will be taken into consideration and explain, if possible, why yes or why not. PP15 will involve University of Split students from the Department of maritime studies in conservation and restoration activities with Pinna nobilis. 5. Results and conclusions (what was worked out during the workshops and inputs in case for further or next activities). <p>Monitoring and restoration activities implemented through EU project CASCADE are of interest for the scientific community. They are strongly supporting achievement of Habitat directive provisions.</p>
Role of CASCADE partner in the event:	Presenter
Type of audience/target groups involved:	Students and professionals.

Target groups (AF Section F)	Target groups reached in this event	Details of involved target
General public	39	Students
Local, regional and national public authorities	-	
Associations	-	
NGOs	2	Association Sunce UNEP SPA/RAC

Education and training organizations as well as universities and research institutes	4	Institute of Oceanography and Fisheries Natural History Museum of Split University of Split, Department of marine studies
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Annexes:

- Photos from events (it is preferable to have few photos where CASCADE logo is visible - on presentation, poster, roll-up, promotional materials etc.),

