

LIFE PINNARCA

LIFE NAT/ES/001265



DELIVERABLE D5.1

FIRST PROJECT IMPACT REPORT



Fundación Universidad Católica de Valencia
IMEDMAR - UCV

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1. Abstract

The global aim of this project is preventing the extinction of *Pinna nobilis* at the short-medium term caused by the pandemic started in 2016. The project focuses on different actions to raise awareness, to reduce the possibility of vandalism or illegal collection as well as different activities that may damage *Pinna nobilis* and their habitats. It also focuses on monitoring the surviving populations and resistant individuals to establish an accessible database to facilitate the development of disease mitigation and recovery plans for the species. Finally, conservation actions are being developed for both resistant and non-resistant individuals to increase the chances of survival of the species.

All the actions carried out in the project must be monitored and evaluated in order to know the level of implementation of what was established in the proposal, both in terms of time, with respect to the chronogram, and to the objectives established at the beginning of the project.

For this purpose, different deliverables have been established for the control of the project development in action F.2 Supervision of project development by the "Follow-up Reports", and for the evaluation of the project results the deliverables indicated in action D.5 Monitoring and evaluation of the impact of the project actions by the "Project Impact Reports".

This document describes the main Key Project Indicators (KPIs) initially established as a project development objective. Besides, the updates of these objectives resulting from the implementation of the project and the degree of compliance up to the date of preparation of this report have been included.

This deliverable is based on the monitoring of the indicators established in the LIFE programme in the initial table "LIFE Key Project Level Indicators - LIFE Call for Proposals 2020" in which each indicator is described and quantified. The indicators in the table will be adapted to the KPI webtool of the European Commission, where the KPIs of the project will be monitored by the project's monitoring entity (NEEMO) and the European Climate, Infrastructure and Environment Executive Agency (CINEA) through regular snapshots.

The monitoring protocol used for the collection of all project data is based on the periodic communication by the beneficiary partners of the progress and results obtained by the different actions for which they are responsible to the Coordinating Beneficiary.

Periodic updates will allow the monitoring and evaluation of the project to identify the real impact of the project implementation.

2. Initial Table of LIFE Key Project Level Indicators by EASME

In the period prior to the start of the project, during the elaboration of the project proposal, a number of quantifiable KPIs were set as a target to be able to evaluate the project results.

The indicators to be monitored during the project focus on the following categories:

- Improved Nature, Species and Biodiversity: Directly related to the monitoring and conservation actions of the project.
- Economic Performance, Market Uptake, Replication: Related to the economic impact and employment resulting from the implementation of the project.
- Communication, dissemination, awareness rising: Related to all activities included in the dissemination and transferability actions of the project.

Within each category, the established KPIs are divided into different scopes of application, which will be established according to the indicator description and the application areas of the project.

In order to be able to monitor the KPIs of the project, the results expected to be achieved at the end of the project are established, as well as the results expected in the long term. In the case of the LIFE PINNARCA project, as it is a Natura project, it is mandatory to establish the values of the KPIs expected to be obtained 5 years after the end of the project.

The following sub-sections show the different KPIs set as targets, as well as the impact generated after the end of the project and 5 years after its conclusion.

These values are an estimation based on general parameters, so that during the development of the project they will be modified and new indicators will be established in order to obtain the real impact of the project.

2.1. Improved Nature, Species and Biodiversity KPIs

These KPIs include project results that affect the *Pinna nobilis* species as well as its environment, such as optimal areas in the presence of *Posidonia oceanica*, other favourable species, or invasive species that may be found.

These KPIs focus on locating new reservoirs, conserving and restoring optimal areas for *Pinna nobilis*, searching for new individuals and resistant individuals and establishing the presence of invasive species in areas where monitoring and conservation actions are being carried out.

Executive Agency for Small and Medium Sized Enterprises (EASME)					
LIFE Key Project Level Indicators					
LIFE Call for Proposals 2020					
At the end of the project					
Objective	Indicators		Estimated Impact (absolute values)	Estimated Impact (in %)	Please comment and give brief explanations of assumptions used for the calculation
Improved Nature, Species and Biodiversity	Habitats	New reservoirs for <i>Pinna nobilis</i>	2-5 new reservoirs, as well as another 2-5 new areas where repopulation could be conducted	10%	There are many coastal lagoons and deltas that need to be explored for the presence of <i>Pinna nobilis</i> . Accordint to the knowledge of these areas (technical and scientific), we think we can find at least a 10% more of reservoirs for <i>P. nobilis</i> .
	Habitats	Areas progressing towards improvement or restoration or in a favourable conservation status	> 15000 ha	Stable. To be determined through the 3 years of the project.	Conservation and protection of <i>Posidonia oceanica</i> , <i>Cymodocea nodosa</i> , <i>Caulerpa prolifera</i> and <i>Zostera Noltii</i>
	Wildlife Species	Number of threatened species in improved or secured status	1 species 9000 individuals	10%	The mass mortality has decimated fan mussel populations of open waters in Spanish coasts. Part of the actions involve searching for resistant individuals. Right now only 6 have been found in Spain. By increasing the areas explored, the number should rise. Each resistant individual found is extremely important for the survival of the species and we have to facilitate their cross reproduction.
	Alien Species	Reduction of invasive alien species	Population/ha Population/m3	% change to be determined after the end project	<i>Callinectes sapidus</i> (Blue Crab). Invasive species have a very stochastic way of spreading, depending on the interaction with the new environment and local species (they create a new niche taking advantage of the favourable conditions for their spreading in the new area). Therefore, it is very difficult to estimate the percentage of impact of the derived actions from LIFE Pinnarca. However, we will focus on cataloguing the presence of the crab and contributing as much as possible on its eradication, taking advantage of any opportunity to increase our impact in reducing its populations during our surveys. e cannot estimate a priori the impact of our actions, but, at least, we will be able to gather important information that will serve to stablish synergies with other projects focused to the study/eradication of this invasive species.

Table 1. Initial Table of LIFE Key Project Level Indicators - Improved Nature, Species and Biodiversity at the end of the project

Executive Agency for Small and Medium Sized Enterprises (EASME)					
LIFE Key Project Level Indicators					
LIFE Call for Proposals 2020					
3 or 5 years after the project (5 years mandatory for Nature Projects)		Select →			
		5 years after the project			
Objective	Indicators	Estimated Impact (absolute values)	Estimated Impact (in %)	Please comment and give brief explanations of assumptions used for the calculation	
Improved Nature, Species and Biodiversity	Habitats	New reservoirs for <i>Pinna nobilis</i>	3-6 new reservoirs, as well as another 3-6 new areas where repopulation could be conducted	15%	There are many coastal lagoons and deltas that need to be explored for the presence of <i>Pinna nobilis</i> . Accordint to the knowledge of these areas (technical and scientific), we think we can find at least a 15% more of reservoirs for <i>P. nobilis</i> , considering 5 years fter LIFE.
	Habitats	Areas progressing towards improvement or restoration or in a favourable conservation status	> 15000 ha	Stable. To be determined through the 3 years of the project.	Conservation and protection of <i>Posidonia oceanica</i> , <i>Cymodocea nodosa</i> , <i>Caulerpa prolifera</i> and <i>Zostera Noltii</i>
	Wildlife Species	Number of threatened species in improved or secured status	1 species 18000 individuals	15%	With the push of Pinnarca project, we will try to promote the research on fan mussel reproduction. Together, the 3 years of LIFE project, where some assays of fan mussel maintenance in aquarium are conducted, plus 3 to 5 years after, we expect to be able to have viable offspring, both from resistant and non-resistant individuals
	Alien Species	Reduction of invasive alien species	Population/ha Population/m3	% change to be estimated after the end project% change	<i>Callinectes sapidus</i> (Blue Crab). Invasive species have a very stochastic way of spreading, depending on the interaction with the new environment and local species (they create a new niche taking advantage of the favourable conditions for their spreading in the new area). Therefore, it is very difficult to estimate the percentage of impact of the derived actions from LIFE Pinnarca. However, we will focus on cataloguing the presence of the crab and contributing as much as possible on its eradication, taking advantage of any opportunity to increase our impact in reducing its populations during our surveys. e cannot estimate a priori the impact of our actions, but, at least, we will be able to gather important information that will serve to stablish synergies with other projects focused to the study/eradication of this invasive species.

Table 2. Initial Table of LIFE Key Project Level Indicators - Improved Nature, Species and Biodiversity 5 years after the end of the project

2.2. Economic Performance, Market Uptake, Replication KPIs at the end of the project

As a Natura Project, the objective of the project is not the development of a product and its subsequent commercialisation, therefore the only KPI established in this category refers to the jobs created for the project execution. Therefore, the KPI indicated for job creation will only cover jobs created at the end of the project.

Executive Agency for Small and Medium Sized Enterprises (EASME) LIFE Key Project Level Indicators LIFE Call for Proposals 2020					
At the end of the project					
Objective	Indicators		Estimated Impact (absolute values)	Estimated Impact (in %)	Please comment and give brief explanations of assumptions used for the calculation
Economic Performance, Market Uptake, Replication	Employment	Jobs created	FTE 10-11	% change 100%	During the development of the project it is expected to hire up to (10-11) people for the execution of the different tasks reflected in the proposal. Among the jobs to be created, we can find technicians, predoctoral students and postdocs.

Table 3. Initial Table of LIFE Key Project Level Indicators - Economic Performance, Market Uptake, replication at the end of the project

2.3. Communication, dissemination, awareness rising KPIs

The KPIs established for the evaluation of the different dissemination and transferability actions are quantified according to the reach to the general and specialised public obtained during the development of the project, as well as the communication and dissemination that will be maintained after its completion. For this, the people and entities to which the information has reached are counted, as well as the number of visits to the project's website. In addition, all the social networks created for its dissemination are included, and the objective of changing the behaviour or practices of some companies, such as tourism, fishing, saline companies, etc...

Executive Agency for Small and Medium Sized Enterprises (EASME)					
LIFE Key Project Level Indicators					
LIFE Call for Proposals 2020					
At the end of the project					
Objective	Indicators		Estimated Impact (absolute values)	Estimated Impact (in %)	Please comment and give brief explanations of assumptions used for the calculation
Communication, dissemination, awareness rising	Awareness raising	entities/persons	10-20/+500.000	50%	We expect to participate in several TV shows, besides the DVD of the project that will be filmed. One was broadcasted before the LIFE, but with Pinnarca, the possibilities and the general interest will rise. So we expect to reach at least 50% more of audience, providing updates of the works performed. Sharing our knowledge and advances with other countries such as Turkey, Malta, Morocco, Algeria, Libya, Tunisia, Egypt, Slovenia, Croatia, Montenegro and Albania
	Website	visitors	25000	100%	The website of the project will be announced and promoted in every activity and presentation about Pinnarca and fan mussels
	Behavioural change	Number of entities changing behaviour	4	70%	Local government (e.g. coastal city councils) and private companies are expected to find the protection of fan mussels more appealing. With the support of the LIFE project, we will try to convince companies such as Balearia S.A., who are interested in funding the conservation of Mediterranean species and biodiversity, that investing in fan mussel protection has important revenues for their promotion. Of all entities reached, we expect to change the behaviour of at least 4 of them.

Table 4. Initial Table of LIFE Key Project Level Indicators - Communication, dissemination, awareness rising at the end of the project

Executive Agency for Small and Medium Sized Enterprises (EASME)					
LIFE Key Project Level Indicators					
LIFE Call for Proposals 2020					
3 or 5 years after the project (5 years mandatory for Nature Projects)		Select →		5 years after the project	
Objective	Indicators		Estimated Impact (absolute values)	Estimated Impact (in %)	Please comment and give brief explanations of assumptions used for the calculation
Communication, dissemination, awareness rising	Awareness raising	entities/persons	10-20/+500.000	50%	We expect to participate in several TV shows, besides the DVD of the project that will be filmed. One was broadcasted before the LIFE, but with Pinnarca, the possibilities and the general interest will rise. So we expect to reach at least 50% more of audience, providing updates of the works performed. Sharing our knowledge and advances with other countries such as Turkey, Malta, Morocco, Algeria, Libya, Tunisia, Egypt, Slovenia, Croatia, Montenegro and Albania.
	Website	visitors	60000	>100%	The website of the project will be announced and prompted in every activity and presentation about fan mussels and Pinnarca
	Behavioural change	Number of entities changing behaviour	10	>100%	Local government (e.g. coastal city councils) and private companies are expected to find the protection of fan mussels more appealing. With the support of the LIFE project, we will try to convince companies such as Balearia S.A., who are interested in funding the conservation of Mediterranean species and biodiversity, that investing in fan mussel protection has important revenues for their promotion.

Table 5. Initial Table of LIFE Key Project Level Indicators - Communication, dissemination, awareness rising 5 years after the end of the project

3. First Snapshot of the LIFE PINNARCA KPIs

In order to obtain a first assessment by NEEMO and CINEA, a series of KPIs have been established, based on those initially established in the European Commission's KPI Webtool application (Figure 1).

To introduce all the necessary data, we have followed the scheme predetermined by the application, starting with the basic data of the project up to the determination of the indicators.

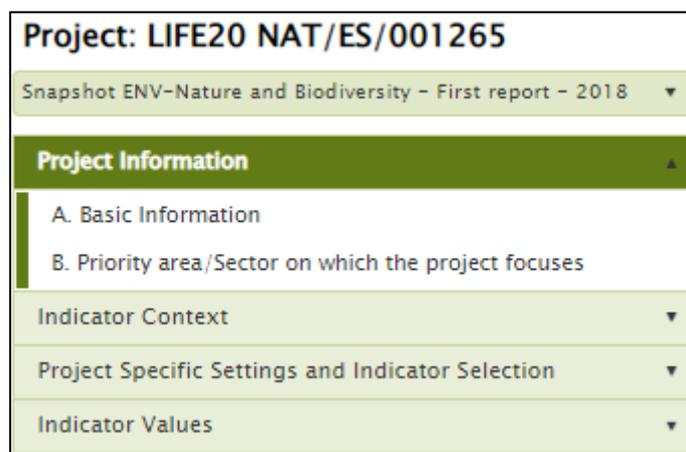


Figure 1. KPI Webtool – Project Information

3.1. Project Information

In the Project Information section, the information related to the project has been included.

3.1.1. Basic Information

The Basic Information section (Figure 2) includes all the project identification data, as well as its reference number "LIFE20 NAT/ES/001265" and acronym "LIFE PINNARCA", title, total budget and European Commission contribution. On the other hand, the data of the persons authorized to access this application are also included.

Project reference*	LIFE20 NAT/ES/001265									
Official title*	Protection and restoration of Pinna nobilis populations as a response to the catastrophic pandemic started in 2016									
Acronym*	LIFE PINNARCA									
Name of coordinating beneficiary*	FUNDACIÓN UNIVERSIDAD CATÓLICA DE VALENCIA SAN VICENTE MÁRTIR (JMEDMAR-UCV)									
Total Cost:	2,249,322.00	Refresh Financial Data								
Eligible Cost:	2,249,322.00									
EC Contribution:	1,347,894.00									
CA Contribution:	126,491.00									
AA Contribution:	774,977.00									
CF Contribution:	0.00									
Complementary Funding:	0.00									
Assigned users:	<table border="1"> <thead> <tr> <th>User</th> <th>Profile</th> </tr> </thead> <tbody> <tr> <td>[REDACTED]</td> <td>MONITOR</td> </tr> <tr> <td>[REDACTED]</td> <td>PROJECT_OFFICER</td> </tr> <tr> <td>[REDACTED]</td> <td>BENEFICIARY</td> </tr> </tbody> </table>		User	Profile	[REDACTED]	MONITOR	[REDACTED]	PROJECT_OFFICER	[REDACTED]	BENEFICIARY
User	Profile									
[REDACTED]	MONITOR									
[REDACTED]	PROJECT_OFFICER									
[REDACTED]	BENEFICIARY									
Level*	None									
Size of Coordinator*	To Be Completed by the Coordinator									
Type of legal entity*	Private non-commercial									
Start date*	01/10/2021									
End date*	31/12/2024									
Beyond the end reference period*	<input type="radio"/> five years after the end of the project <input checked="" type="radio"/> three years after the end of the project									
Comments:	First checked 14/11/2022 Trends ok. Outlier in 7.4 is commented upon.									

Figure 2. Project Information - A. Basic Information

3.1.2. Priority area/Sector on which the Project focuses

In the Priority area/Sector on which the Project focuses section (Figure 3) the priority and thematic area of the project is indicated, being in this case "Nature and Biodiversity".

Priority area*:	NATURE AND BIODIVERSITY
Thematic Priority/Priority Area*:	Nature and Biodiversity
Comments:	eProposal initial import on 30/11/2021

Figure 3. Project Information - B. Priority area/Sector on which the Project focuses

3.2. Indicator Context

The different indicators selected to this project are shown in Figure 4:

Project: LIFE20 NAT/ES/001265	
Snapshot ENV-Nature and Biodiversity - First report - 2018	▼
Project Information	▼
Indicator Context	▲
C.1. Overarching Context	▲
C.1.1. Biogeographical regions	
C.1.2. Territorial extents	
C.1.3. Water bodies	
C.1.4. Ecosystems and their services	
C.1.5. Natura 2000 sites	
C.1.6. Project Fundings	
C.2. Specific Context	
Project Specific Settings and Indicator Selection	▼
Indicator Values	▼

Figure 4. KPI Webtool – Indicator Context

3.2.1. Overarching Context

Section C.1. Overarching Context establishes the type of territorial scope of application of the indicators to be established.

Due to the typology of the LIFE PINNARCA project, the following Overarching Contexts are established to delimit the scope of the KPIs.

Territorial extents

En el apartado C.1.2. se han indicado los países donde se van se están implementando las diferentes acciones del proyecto LIFE PINNARCA.

- Spain (ES)
- Italy (IT)
- France (FR)
- Greece (EL)

Level 1	Level 2	Level 3	Level 4
ES			
IT			
FR			
EL			

Figure 5. Indicator Context – C.1. Overarching Context – C.1.2. Territorial extents

Natura 2000 sites

In section C.1.5 all the areas of the Natura 2000 Network where the different monitoring and conservation actions of the species *Pinna nobilis* are being carried out have been introduced.

Natura 2000 areas are identified into different types according to their typology:

- Sites of Community Importance (SCI) – Sites designated for their potential contribution to restoring natural habitats, including ecosystems and wildlife biodiversity.
- Special Areas of Conservation (SAC) – Areas of high environmental concern for the conservation of biodiversity.
- Special Protection Areas (SPAs) – Those sites are selected to protect one or more rare, threatened or vulnerable bird species.

(p)SCI/SAC Code – Name	SPA Code – Name
ES5120007 – Cap de Creus	
ES5211007 – Montgó	
ES5213018 – Penya-segats de la Marina	
ES0000046 – Cabo de Gata-Níjar	
ES0000083 – Arxipèlag de Cabrera	
ES0000084 – Ses Salines d'Eivissa i Formentera	
ES5310109 – Àrea marina de cala Saona	
ES5310104 – Costa de l'Oest d'Eivissa	
ES0000214 – Espacio marino de Tabarca	
GR4110004 – LESVOS: KOLPOS KALLONIS KAI CHERSAIA PARAKTIA ZONI	
ES0000020 – Delta de l'Ebre	
	ES0000020 – Delta de l'Ebre
	ES0000260 – Mar Menor
	ES0000271 – Isla de las Palomas
ES6200029 – Franja Litoral Sumergida de la Región de Murcia	
ES6200006 – Espacios Abiertos e Islas del Mar Menor	
ES0000175 – Salinas y Arenales de San Pedro del Pinatar	
ES6200007 – Islas e islotes del Litoral Mediterráneo	
IT3250030 – Laguna medio-inferiore di Venezia	
IT8030015 – Lago del Fusaro	
IT8030017 – Lago di Miseno	
FR9302001 – Lagune du Brusac	
ESZZ16006 – Espacio marino de Ifac	
	IT3250046 – Laguna di Venezia

Figure 6. Indicator Context – C.1. Overarching Context – C.1.5. Natura 2000 sites

3.2.2. Specific Context

Once the areas of application of the contexts in which the KPIs will be included have been established, this section determines the different contexts or scope of application of the indicators that are established.

The project will establish the contexts related to the different types of actions to be carried out in the project and the areas where they are applied:

- **Monitoring actions:** They will be carried out in all Natura 2000 sites established in section C.1.5.
- **Conservation actions:** The Natura 2000 sites where conservation actions will be carried out are indicated (Ebro Delta, Mar Menor, Kalloni Gulf and Brusc Lagoon).
- **Dissemination and awareness actions:** Communication and dissemination actions shall be carried out in the countries established in section C.1.2.

Specific context name	Overarching contexts
Dissemination and awareness actions	EL ES FR IT
Monitoring actions	GR4110004 ES5120007 ES5211007 ES5213018 ES0000046 ES0000083 ES0000084 ES5310109 ES5310104 ES0000214 ES0000020 ES6200029 ES6200006 ES0000175 ES6200007 ESZZ16006 FR9302001 IT3250030 IT8030015 IT8030017 ES0000260 ES0000271 IT3250046
Conservation Actions	GR4110004 ES0000020 FR9302001 ES0000260

Figure 7. Indicator Context – C.2. Specific Contexts

3.3. Project Specific Settings and Indicator Selection

This section establishes the different types of indicators to be used to monitor the results obtained from the project. To this purpose, the types of indicators included in the categories shown in Figure 7 are selected.

Project: LIFE20 NAT/ES/001265	
Snapshot ENV–Nature and Biodiversity – First report – 2018	▼
Project Information	▼
Indicator Context	▼
Project Specific Settings and Indicator Selection	▲
D. Project setting, area/length and population	
E. Environmental and Climate action outputs and outcomes	
F. Societal outputs and outcomes	
G. Economic outputs and outcomes	
Indicator Values	▼

Figure 8. KPI Webtool – Project Specific Settings and Indicator Selection

3.3.1. Project setting, area/length and population

This section includes the types of indicators related to project information. In our case, the following types have been selected:

- **1.5. Project area/length**
- **1.6. Humans (to be) influenced by the project**

If an interrelationship with other EU policy areas is foreseen choose the interrelated EU sector(s) and/or EU policy area(s):

- 1.3.1 EU policy areas

If the project is linked to other EU funds choose the relevant ones from the list:

- 1.3.2 EU funds (type of interrelationship with other funds)
- 1.5 Project area/length
- 1.6 Humans (to be) influenced by the project

Figure 9. Project Specific Settings and Indicator Selection – Project setting, area/length and population

3.3.2. Environmental and Climate action outputs and outcomes

This section includes the types of indicators related to the impact that the project may have on the environment and climate change. In our case, the following types have been selected:

- **7. Nature and Biodiversity**
 - **7.3. Natural and semi-natural hábitats**
 - **7.4. Wildlife species**

If the project is influencing water (including the marine environment) choose the relevant indicator(s) from the list:

- ▶ 2 Water (including the marine environment)

If the project is influencing waste choose the relevant indicator(s) from the list:

- ▶ 3 Waste

If the project is influencing resource efficiency (including soil, forests and green circular economy) choose the relevant indicator(s) from the list:

- ▶ 4 Resource efficiency (including soil, forests and green circular economy)

If the project is influencing environment and health (including chemicals and noise) choose the relevant indicator(s) from the list:

- ▶ 5 Environment and health (including chemicals and noise)

If the project is influencing air choose the relevant indicator(s) from the list:

- ▶ 6 Air

If the project is influencing nature and biodiversity choose the relevant indicator(s) from the list:

- ▶ 7 Nature and Biodiversity:
 - 7.1 Ecosystem assessment
 - 7.2 Ecosystem services assessment
 - 7.3 Natural and semi-natural habitats
 - 7.4 Wildlife species
 - ▶ 7.5 Threats – Invasive alien species (IAS) or other threats
 - 7.5.1 Invasive Alien Species
 - 7.5.2 Other threats

If the project is influencing climate change mitigation choose the relevant indicator(s) from the list:

- ▶ 8 Climate Change Mitigation

If the project is influencing climate change adaptation choose the relevant indicator(s) from the list:

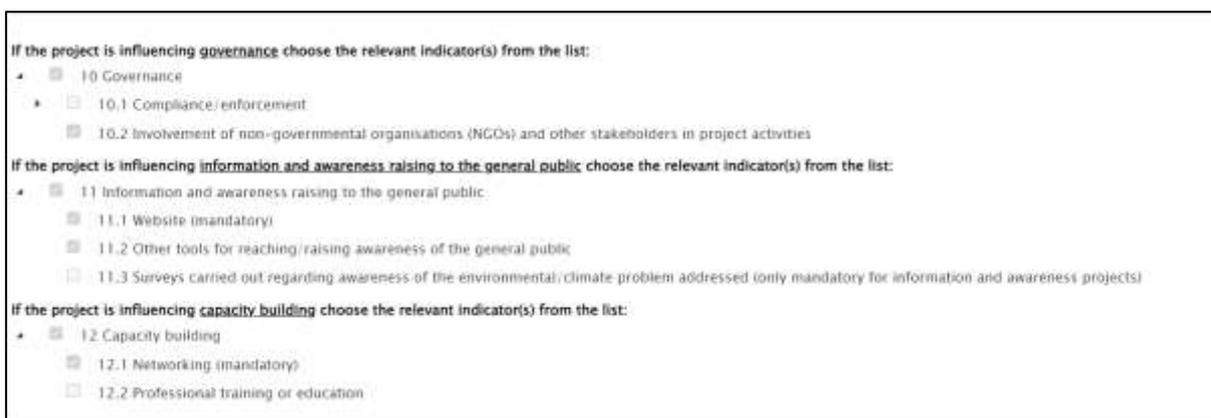
- ▶ 9 Climate Change Adaptation

Figure 10. Project Specific Settings and Indicator Selection – Environmental and Climate action outputs and outcomes

3.3.3. Societal outputs and outcomes

In this section are included the types of indicators related to the results of the project at the level of impact on society derived from the different activities carried out during the project included in actions E.1 Dissemination actions and E.2 Transferability of the project results. In our case, the following types have been selected:

- **10. Governance**
 - **10.2. Involvement of non-governmental organisations (NGOs) and other stakeholders in project activities**
- **11. Information and awareness raising to the general public**
 - **11.1. Website**
 - **11.2. Other tools for reaching/raising awareness of the general public**
- **12. Capacity building**
 - **12.1. Networking**



If the project is influencing **governance** choose the relevant indicator(s) from the list:

- 10 Governance
 - 10.1 Compliance/enforcement
 - 10.2 Involvement of non-governmental organisations (NGOs) and other stakeholders in project activities

If the project is influencing **information and awareness raising to the general public** choose the relevant indicator(s) from the list:

- 11 Information and awareness raising to the general public:
 - 11.1 Website (mandatory)
 - 11.2 Other tools for reaching/raising awareness of the general public
 - 11.3 Surveys carried out regarding awareness of the environmental/climate problem addressed (only mandatory for information and awareness projects)

If the project is influencing **capacity building** choose the relevant indicator(s) from the list:

- 12 Capacity building:
 - 12.1 Networking (mandatory)
 - 12.2 Professional training or education

Figure 11. Project Specific Settings and Indicator Selection – Societal outputs and outcomes

3.3.4. Economic outputs and outcomes

This section includes the types of indicators related to project results in terms of project financing and job creation. In our case, the following types have been selected:

- **13. Jobs**
- **14. Contribution to Economic growth**
 - **14.1. Running cost/operating costs during the project and expected in case of continuation/replication/transfer after the project period**
 - **14.3. Future funding**
 - **14.4. Continuation/replication/transfer**
 - **14.4.3. Entry into new geographic areas**

If the project is influencing jobs choose the relevant indicator(s) from the list:

- 13 Jobs

If the project has a contribution to economic growth choose the relevant indicator(s) from the list:

- 14 Contribution to Economic growth
 - 14.1 Running cost/operating costs during the project and expected in case of continuation/replication/transfer after the project period
 - 14.2 Capital cost expected in case of continuation/replication/transfer after the project
 - 14.3 Future funding
 - 14.4 Continuation/replication/transfer after the project period
 - 14.4.1 Entry into new entities/projects
 - 14.4.2 Entry into new sectors
 - 14.4.3 Entry into new geographic areas

Figure 12. Project Specific Settings and Indicator Selection – Economic outputs and outcomes

3.4. Indicator Values

Once the previous sections have been completed, the final determination of the indicators and their values are made on the basis of the selections made in the Project Specific Settings and Indicator Selection section.

Project: LIFE20 NAT/ES/001265	
Snapshot ENV-Nature and Biodiversity – First report – 2018	▼
Project Information	▼
Indicator Context	▼
Project Specific Settings and Indicator Selection	▼
Indicator Values	▲
1.5. Project area/length	
1.6. Humans (to be) influenced by the project	
7. Nature and Biodiversity	▼
10. Governance	▼
11. Information and awareness raising to the general public	▼
12. Capacity building	▼
13. Jobs	
14. Contribution to Economic growth	▼

Figure 13. KPI Webtool – Indicator Values

3.4.1. Project area/length

This section refers to the total area where the project actions are to be carried out.

In this indicator, the areas where the different monitoring and conservation actions are being carried out have been fixed. The values of the indicators are shown in Figure 14.

Specific Context	Selected Overarching Context Items	Descriptor	Begin Value	End Value	Beyond 3-Years Value	Unit	
Monitoring actions	[GR4110004, ES5120007, ES5211007, ES5213018, ES0000048, ES0000083, ES0000084, ES5310109, ES5310104, ES0000214, ES0000020, ES6200029, ES6200006, ES0000175, ES6200007, ESZZ10006, FR9302001, IT3250030, IT8030015, IT8030017, ES0000260, ES0000271, IT3250046]	Area of environmental/climate implementation actions (e.g. development, testing, demonstration, application of best practices/innovations).	0	516	516	ha	View
Conservation Actions	[GR4110004, ES0000020, FR9302001, ES0000260]	Conservation or improvement of the status of an area or segment	0	301	301	ha	View

Figure 14. Project area/length indicator

It has been established that for the Monitoring actions a total area of 516 ha (Figure 15) will be reached at the end of the project, which will not increase after the end of the project.

This area corresponds to the sum of all the areas corresponding to each Natura 2000 area, where the different monitoring actions of *Pinna nobilis* are being carried out.

In the case of Conservation actions, it has been established that they will be carried out on 301 ha (Figure 16) until the end of the project and will remain constant after the end of the project.

These areas cover the specific surface of the Natura 2000 areas of Greece (Kalloni Gulf), France (Brusc Lagoon) and Spain (Mar Menor and Ebro Delta) where the different actions for the conservation of the species *Pinna nobilis* will be carried out, as well as the species present in the areas that conform the optimal zones where the species can be found (*P. oceanica*, *Cymodocea nodosa*, *Caulerpa prolifera* and *Zostera Noltii*).

Edit values for Indicator: 1.5. Project area/length

Specific context*:

Indicator descriptor*:

Indicator values: Provide values later:

At the beginning	At the end	Beyond 3 years	Unit
<input type="text" value="0.00"/>	<input type="text" value="516.00"/>	<input type="text" value="516.00"/>	<input type="text" value="ha"/>

Indicator flags: Choose the Type of project action(s) targeting the main project outcome(s) within the project area:

Comments: Includes the zones (area) where Pinna nobilis monitoring is carried out in the project at Natura 2000 areas

The 516 ha are distributed as follows:

Spain:

- Cabo de Gata = 5 ha
- Cabrera = 5 ha
- Ibiza and Formentera = 5+5 = 10 ha
- Tabarca = 5 ha
- Montgo = 1 ha
- Penya Segats Marina = 5 ha
- Delta Ebro = 35 ha
- Mar Menor = 135 ha

Greece:

- Kalloni Gulf = 100 ha

Italy:

- Chio = 163 ha
- Campania = 0,5 ha Fusaro Lagoon + 0,5 ha Miseno = 1 ha

France:

- Ile des Embiez (Brusc Lagoon) = 51 ha

Figure 15. Project area/length - Monitoring actions

Edit values for Indicator: 1.5. Project area/length

Specific context*:

Indicator descriptor*:

Indicator values: Provide values later:

At the beginning	At the end	Beyond 3 years	Unit
<input type="text" value="0.00"/>	<input type="text" value="301.00"/>	<input type="text" value="301.00"/>	<input type="text" value="ha"/>

Indicator flags: Choose the Type of project action(s) targeting the main project outcome(s) within the project area:

Comments: This number of Ha is calculated from the areas where the actions to search for Pinna nobilis, translocation of individuals, larval collectors, as well as the report and proposals for conservation in each country.

- Delta del Ebro = 15 ha
- Kalloni Gulf: 100 ha - Area where Posidonia oceanicae conservation actions are being carried out.
- Mar Menor: 135 ha - 1% of the coastal area of Mar Menor, where populations of Pinna nobilis are monitored
- Brusc Lagoon: 51 ha - 10% of the surface of Brusc Lagoon

Figure 16. Project area/length - Conservation actions

3.4.2. Humans (to be) influenced by the project

This indicator refers to the people who are actually expected to be influenced through the different Dissemination and Awareness actions (Figure 17).

Specific Context	Selected Overarching Context Items	Descriptor	Begin Value	End Value	Beyond 3 Years Value	Unit	
Dissemination and awareness actions	[EL, ES, FR, IT]	Persons who may have been influenced via dissemination or awareness raising project-actions (reaching)	0	5000	7000	Number of other persons influenced /impacted independently of the project area	View

Figure 17. Humans (to be) influenced by the project indicator

The values indicated at the end of the project and after its completion refer to a percentage of 1% of the values in Table 4 and Table 5 that refer to Awareness raising.

On the other hand, the influenced public is divided into different types (Figure 18):

- General Audience
- Specific Audience: Scientific and technical community associates, fishermen from cooperatives, persons public administrations, associations, saline enterprises and students.

Edit values for Indicator: 1.6. Humans (to be) influenced by the project

Specific context*: Dissemination and awareness actions

Indicator descriptor*: Persons who may have been influenced via dissemination or awareness raising project-actions (re...

Indicator values: Provide values later:

At the beginning	At the end	Beyond 3 years	Unit
0.00	5,000.00	7,000.00	Number of oth...

Comments:

Persons influenced are expected to reach 1% of the total audience reached by the project dissemination actions.

The estimation of the expected audience for the different dissemination activities are 500,000 persons. The expected audience is conformed of different groups:

- General audience: 498,000 (TV, general press, radio, public events)
- Specific audience: 2000 (250 scientific and technical community associates, 150 fishermen from cooperatives, 50 persons from public administration, 40 persons from associations, 10 persons from saline enterprises, 1500 students (University & Scholl Students)

Beyond 3 years we expect to reach 700,000 by extra general audience.

x Close window

Figure 18. Humans (to be) influenced by the project - Dissemination and awareness actions

3.4.3. Natural and semi-natural habitats

This indicator includes the areas where the different Conservation actions of the species and its habitat are being carried out. These areas will remain constant throughout the duration of the project and after its conclusion (Figure 19).

Specific Context	Selected Overarching Context Items	Descriptor	Begin Value	End Value	Beyond 3 Years Value	Unit
* Compound Value ID: 32594 View						
Conservation Actions	[GR4130004, ES0000020, FR9302001, ES0000260]	Annex I Habitats Directive	15	15	15	ha
Conservation Actions	[GR4130004, ES0000020, FR9302001, ES0000260]	Habitat Trend	= (stable)	= (stable)	= (improving)	
Conservation Actions	[GR4130004, ES0000020, FR9302001, ES0000260]	Habitat Condition	unknown	unknown	unknown	
* Compound Value ID: 32595 View						
Conservation Actions	[GR4130004, ES0000020, FR9302001, ES0000260]	Annex I Habitats Directive	286	286	286	ha
Conservation Actions	[GR4130004, ES0000020, FR9302001, ES0000260]	Habitat Trend	x (unknown)	x (unknown)	x (unknown)	
Conservation Actions	[GR4130004, ES0000020, FR9302001, ES0000260]	Habitat Condition	unfavourable - inadequate	unknown	unknown	

Figure 19. Natural and semi-natural habitats indicator

Within this indicator, the Conservation actions areas have been separated according to the type of surface area determined in the second level indicator descriptor:

- Compound Value ID 32594: Refers to "Large shallow inlets and bays", which includes the area of the Ebro Delta where the conservation actions will be carried out (Figure 20).
- Compound Value ID 32595: It refers to the area of the Mar Menor, Kalloni Gulf and Brusc Lagoon where conservation actions will be carried out for *Pinna nobilis* and the species that benefit its habitat, such as *P. oceanica* (Figure 21).

In the case of the Ebro Delta area, it is expected that several years after the end of the project the habitat conditions will improve.

In the case of the Mar Menor, Kalloni Gulf and Brusc Lagoon areas, we only have data that the initial conditions are not favorable; it is expected that this indicator can be updated in the next deliverables DD5.2 Second Project Impact Report and DD5.3 Final Project Impact Report.

Edit values for Indicator: 7.3. Natural and semi-natural habitats

Specific context*: Conservation Actions

First level indicator descriptor*: Annex I Habitats Directive

Second level indicator descriptor*: 1160-Large shallow inlets and bays

Indicator descriptors & values: Provide values later:

At the beginning	At the end	Beyond 3 years	Unit
15.00	15.00	15.00	ha

Habitat Condition

At the beginning	At the end	Beyond 3 years
unknown	unknown	unknown

Habitat Trend

At the beginning	At the end	Beyond 3 years
= (stable)	= (stable)	+ (improving)

Indicator flags:

Investment measures: Coast

New (ex novo) or existing habitat: existing natural or semi-natural habitats

Number of products/year (only if applicable): Select any flag(s)

Passive measures: Select any flag(s)

Securing measures: Select any flag(s)

Comments: Depending on the area due to its proximity to freshwater inputs from the rice fields, it may or may not be favourable. The north coast of Alfacs may be favourable and the south coast would be unfavourable, depending on the progress of the disease. In El Fangar the disease has not been detected for the moment and it is assumed that it will be favourable.

Figure 20. Natural and semi-natural habitats - Delta del Ebro

Edit values for Indicator: 7.3. Natural and semi-natural habitats

Specific context*: Conservation Actions

First level indicator descriptor*: Annex I Habitats Directive

Second level indicator descriptor*: 1150-Coastal lagoons

Indicator descriptors & values: Provide values later:

At the beginning	At the end	Beyond 3 years	Unit
286.00	286.00	286.00	ha

Habitat Condition

At the beginning	At the end	Beyond 3 years
unfavourable	unknown	unknown

Habitat Trend

At the beginning	At the end	Beyond 3 years
x (unknown)	x (unknown)	x (unknown)

Indicator flags:

Investment measures:
Ex-situ and in-situ species conservation ✕

New (ex novo) or existing habitat:
existing natural or semi-natural habitats ✕

Number of products/year (only if applicable):
Select any flag(s)

Passive measures:
Select any flag(s)

Securing measures:
Select any flag(s)

Comments:
The area where conservation actions are conducted are estimated as follows:
- Kalloni Gulf: 100 ha - Area where Posidonia oceanicae conservation actions are being carried out.
- Mar Menor: 135 ha - 1% of the coastal area of Mar Menor, where populations of Pinna nobilis are monitored
- Brusc Lagoon: 51 ha - 10% of the surface of Brusc Lagoon

Figure 21. Natural and semi-natural habitats - Mar Menor, Kalloni Gulf, Brusc Lagoon

3.4.4. Wildlife species

The Wildlife species indicator refers to actions that are directly related to the main species of the *Pinna nobilis* project, so the Specific Context used in this indicator is Monitoring actions (Figure 22).

Specific Context	Selected Overarching Context Items	First Level Descriptor	Second Level Descriptor	Begin Value	End Value	Beyond 3 Years Value	Unit
Compound Value ID: 32596 View							
Monitoring actions	[GR4110004, ES5120007, ES5211007, ES5213018, ES0000046, ES0000083, ES0000084, ES5310109, ES5310104, ES0000214, ES0000020, ES6200029, ES6200006, ES0000175, ES6200007, ES2216006, FR9302001, IT3250030, IT8030015, IT8030017, ES0000260, ES0000271, IT3250046]	Annex IV Habitats Directive species	<i>Pinna nobilis</i> : Molluscs	5000	9000	18000	number of individuals
Monitoring actions	[GR4110004, ES5120007, ES5211007, ES5213018, ES0000046, ES0000083, ES0000084, ES5310109, ES5310104, ES0000214, ES0000020, ES6200029, ES6200006, ES0000175, ES6200007, ES2216006, FR9302001, IT3250030, IT8030015, IT8030017, ES0000260, ES0000271, IT3250046]	Annex IV Habitats Directive species	<i>Pinna nobilis</i> : Molluscs	15000	15000	15000	ha
Monitoring actions	[GR4110004, ES5120007, ES5211007, ES5213018, ES0000046, ES0000083, ES0000084, ES5310109, ES5310104, ES0000214, ES0000020, ES6200029, ES6200006, ES0000175, ES6200007, ES2216006, FR9302001, IT3250030, IT8030015, IT8030017, ES0000260, ES0000271, IT3250046]	Species Trend		- decrease	0 stable	+ increase	
Monitoring actions	[GR4110004, ES5120007, ES5211007, ES5213018, ES0000046, ES0000083, ES0000084, ES5310109, ES5310104, ES0000214, ES0000020, ES6200029, ES6200006, ES0000175, ES6200007, ES2216006, FR9302001, IT3250030, IT8030015, IT8030017, ES0000260, ES0000271, IT3250046]	Species Status		unfavorable - bad (U2)	unfavorable - bad (U2)	unfavorable - bad (U2)	

Figure 22. Wildlife species indicator

This indicator includes the entire area considered optimal for the species, so the area will remain constant throughout the project and after its completion. One of the objectives of the project is to monitor surviving individuals and search for new unidentified individuals. It is expected that the number of individuals will increase throughout the duration of the project and after its completion (Figure 23).

Edit values for Indicator: 7.4. Wildlife species

Specific context*:

First level indicator descriptor*:

Second level indicator descriptor*:

Indicator descriptors & values: Provide values later:

Species Area

At the beginning	At the end	Beyond 3 years	Unit
<input type="text" value="15,000.00"/>	<input type="text" value="15,000.00"/>	<input type="text" value="15,000.00"/>	<input type="text" value="ha"/>

Population count method Rest

At the beginning	At the end	Beyond 3 years	Unit
<input type="text" value="5,000.00"/>	<input type="text" value="9,000.00"/>	<input type="text" value="18,000.00"/>	<input type="text" value="number of ind..."/>

Species Status
For Habitats Directive Status

At the beginning	At the end	Beyond 3 years
<input type="text" value="unfavorable - ..."/>	<input type="text" value="unfavorable - ..."/>	<input type="text" value="unfavorable - ..."/>

Species Trend
For Habitats Directive II, IV and V species

At the beginning	At the end	Beyond 3 years
<input type="text" value="- decrease"/>	<input type="text" value="0 stable"/>	<input type="text" value="+ increase"/>

Indicator flags:

Investment measures:

Number of products/year (only if applicable):

Passive measures:

Securing measures:

Comments:

The total surface area of all Natura 2000 (LIC+ZEPA) areas included in the project is 313,960.27 ha.

The optimal area for the Pinna nobilis habitat due to its environmental conditions, depth, species presence and communities is estimated to be 15,000 ha of the total surface area.

Regarding population, given the current situation, the number of individuals of the species will not improve but thanks to the actions of Life we will be able to have a more precise value of the stock of individuals, we believe the current value is underestimated.

Figure 23. Wildlife species - Monitoring actions

3.4.5. Involvement of non-governmental organisations (NGOs) and other stakeholders in project activities

With regard to NGOs, it is expected that thanks to the orientation of the project and its partners, we will actively collaborate with up to 4 NGOs during the project and in the future this number will increase (Figure 24).

Specific Context	Selected Overarching Context Items	Descriptor	Begin Value	End Value	Beyond 3 Years Value	Unit	
Dissemination and awareness actions	[EL, ES, FR, IT]	NGO	0	4	10	number of stakeholders involved due to the project	View

Figure 24. Involvement of NGOs and other stakeholders in project activities indicator

Edit values for Indicator: 10.2. Involvement of non-governmental organisations (NGOs) and other stakeholders in

Specific context*: Dissemination and awareness actions

Indicator descriptor*: NGO

Indicator values: Provide values later:

At the beginning: 0.00 At the end: 4.00 Beyond 3 years: 10.00 Unit: number of sta...

Indicator flags: Choose the Sectors represented by the stakeholders:

B093-Extraction of salt x E1600-Water collection, treatment and supply x

J-Information and communication x M72-Scientific research and development x

A-AGRICULTURE, FORESTRY and FISHING x

O84-Public administration and defence; compulsory social security x P85-Education x

Choose the Territorial level(s) at which stakeholders are involved:

E3 level x

Choose the Type(s) of intervention:

Other x

Comments:

During the implementation of the project, it is expected to collaborate with different NGOs whose activity is focused on marine areas, nature protection and environment, for demonstration of interest, support, protection and dissemination of the Pinnarca project.

Among the NGOs expected to collaborate during the project are:

- Oceana (<https://europe.oceana.org>)
- WWF (<https://www.worldwildlife.org/>)
- Observers of the Sea (<https://www.observadoresdelmar.es/>)
- Fondation Tara Ocean (<https://fondationtaraocean.org/en/foundation/>)

Beyond 3 years, the number of NGOs collaborating with the partners of Pinnarca Project is expected to increase to 10. Some of the possible additions to the NGOs collaborating with the Pinnarca project could be the following:

- Greenpeace (<https://www.greenpeace.org/international/>)
- Krakendive (<https://krakendive.com/ghost-fishing-costa-brava-ong/>)
- Azul Marino Foundation (<https://www.azulmarino.org/en/home/>)
- Posidoniamente (<https://www.facebook.com/posidoniamente/>)
- Chelonia Association (<https://www.asociacionchelonia.org/>)
- Vellmari Association (<https://asociacionvellmari.com/>)

Figure 25. Involvement of NGOs and other stakeholders in project activities - NGOs

Figure 25 shows a list of NGOs which we expect to have contact and collaborate in the implementation of activities within the framework of the LIFE PINNARCA project.

3.4.6. Website

This indicator is common and mandatory for all projects included in the LIFE program. It refers exclusively to the number of unique visits registered on the website created during the project (Figure 26).

Specific Context	Selected Overarching Context Items	Descriptor	Begin Value	End Value	Beyond 3 Years Value	Unit	
Dissemination and awareness actions	[EL, ES, FR, IT]	No. of unique visits	0	2500	6000	Number of unique website visits	

Figure 26. Website indicator

The initial KPIs in Table 4 and Table 5 included all visits to the website and social networks created during the project, so the values included in this KPI are a small part of these values, calculated as 10% of the values initially indicated (Figure 27).

Edit values for Indicator: 1.1.1. Website (mandatory)

Specific context*: Dissemination and awareness actions

Indicator descriptor*: No. of unique visits

Indicator values: Provide values later:

At the beginning	At the end	Beyond 3 years	Unit
0.00	2,500.00	6,000.00	Number of uni...

Indicator flags: Choose the Indicators for raising the awareness of individuals:

Other (Specify in comment box) X

Reaching and/or awareness raising of the general public through the project website:

Reaching X

Comments: The expected number of unique visits to the website is estimated to be 10% of the number of total visits to the website, social networks, i.e. the entire network, which is estimated to be 25.000 visits at the end of the project and beyond 3 years is expected to be 60.000 visits.

Figure 27. Website - Dissemination and awareness actions

3.4.7. Other tools for reaching/raising awareness of the general public

This indicator accounts for the different activities that are expected to be carried out during the Dissemination and awareness actions to achieve the project objectives (Figure 28).

Specific Context	Selected Overarching Context Items	Descriptor	Begin Value	End Value	Beyond 3 Years Value	Unit	
Dissemination and awareness actions	[EL, ES, FR, IT]	Number of events/exhibitions organised	0	2	2	Number of outcomes (e.g. nr of reports, events, etc)	View
Dissemination and awareness actions	[EL, ES, FR, IT]	Number of different publications made (journal/conference)	0	8	10	Number of outcomes (e.g. nr of reports, events, etc)	View
Dissemination and awareness actions	[EL, ES, FR, IT]	Number of different displayed information created (posters, information boards)	0	2	2	Number of outcomes (e.g. nr of reports, events, etc)	View
Dissemination and awareness actions	[EL, ES, FR, IT]	Number of articles in print media (e.g. newspaper and magazine articles)	0	10	15	Number of outcomes (e.g. nr of reports, events, etc)	View
Dissemination and awareness actions	[EL, ES, FR, IT]	Other distinct media products created (e.g. different videos/broadcast/leaflets)	0	1	2	Number of outcomes (e.g. nr of reports, events, etc)	View

Figure 28. Other tools for reaching/raising awareness of the general public indicator

Some indicators have been included based on the events to be organized (Figure 29), scientific publications or conferences (Figure 30), information boards or posters (Figure 31), articles published in the media (Figure 32) and other media products (Figure 33) produced during the project.

Edit values for Indicator: 11.2. Other tools for reaching/raising awareness of the general public

Specific context*: Dissemination and awareness actions

Indicator descriptor*: Number of events/exhibitions organised

Indicator values: Provide values later:

At the beginning	At the end	Beyond 3 years	Unit
0,00	2,00	2,00	Number of out...

Indicator flags: Choose the Indicators for raising the awareness of Individuals:

Other (Specify in comment box) X

Reaching and/or awareness raising of the general public:

Reaching X

Comments: Number of events organised during the project, it is expected to organise at least 2 events.
- Presentation of the Project Event at Valencia
- Closing workshop at the end of the project

If possible, further events will be organised during the implementation of the project.

Figure 29. Other tools for reaching/raising awareness of the general public - Number of events organised

Edit values for Indicator: 11.2. Other tools for reaching/raising awareness of the general public

Specific context*: Dissemination and awareness actions

Indicator descriptor*: Number of different publications made (Journal / conference)

Indicator values: Provide values later:

At the beginning	At the end	Beyond 3 years	Unit
0.00	8.00	10.00	Number of out...

Indicator flags: Choose the Indicators for raising the awareness of Individuals.

Other (Specify in comment box) X

Reaching and/or awareness raising of the general public:

Reaching X

Comments: Number of expected publication in scientific journals.

Thanks to the progress and results of the project, it is expected that consortium members will publish in specialised journals indexed in the Journal Citation Report (JCR), preferably in the Q1 and Q2 quartiles.

Figure 30. Other tools for reaching/raising awareness of the general public - Number of different publications made

Edit values for Indicator: 11.2. Other tools for reaching/raising awareness of the general public

Specific context*: Dissemination and awareness actions

Indicator descriptor*: Number of different displayed information created (posters, information boards)

Indicator values: Provide values later:

At the beginning	At the end	Beyond 3 years	Unit
0.00	2.00	2.00	Number of out...

Indicator flags: Choose the Indicators for raising the awareness of Individuals.

Other (Specify in comment box) X

Reaching and/or awareness raising of the general public:

Reaching X

Comments: 2 types of poster/information board design will be prepared during the project

- A generic poster for the entire Pinnarca Project
- A specific poster for the Mar Menor area

Figure 31. Other tools for reaching/raising awareness of the general public - Number of different displayed information created

Edit values for Indicator: 11.2. Other tools for reaching/raising awareness of the general public

Specific context*: Dissemination and awareness actions

Indicator descriptor*: Number of articles in print media (e.g. newspaper and magazine articles)

Indicator values: Provide values later:

At the beginning	At the end	Beyond 3 years	Unit
0.00	10.00	15.00	Number of out...

Indicator flags: Choose the Indicators for raising the awareness of Individuals:

Other (Specify in comment box) ✕

Reaching and/or awareness raising of the general public:

Reaching ✕

Comments: Number of press releases or news in different newspapers or magazine like:

- El Periodico
- Levante
- La Vanguardia
- L'Eco del Mare
- Planeta 2030
- University News
- IPac
- Valencia Plaza
- Ateneapoli
- Fora Vila

Figure 32. Other tools for reaching/raising awareness of the general public - Number of articles in print media

Edit values for Indicator: 11.2. Other tools for reaching/raising awareness of the general public

Specific context*: Dissemination and awareness actions

Indicator descriptor*: Other distinct media products created (e.g. different videos /broadcast /leaflets)

Indicator values: Provide values later:

At the beginning	At the end	Beyond 3 years	Unit
0.00	1.00	2.00	Number of out...

Indicator flags: Choose the Indicators for raising the awareness of Individuals:

Other (Specify in comment box) ✕

Reaching and/or awareness raising of the general public:

Awareness raising ✕

Comments: We expect to participate in several TV shows, besides the DVD of the project that will be filmed.

Figure 33. Other tools for reaching/raising awareness of the general public - Other distinct media products created

3.4.8. Networking

LIFE projects must include mandatory Networking actions, so a Networking indicator is established by default, which includes the different people to whom different dissemination and communication actions will be targeted (Figure 34).

Specific Context	Selected Overarching Context Items	Descriptor	Begin Value	End Value	Beyond 3 Years Value	Unit	
Dissemination and awareness actions	[IT, FR, EL, ES]	Students (in higher education)	0	100	200	No. of individuals	View
Dissemination and awareness actions	[IT, FR, EL, ES]	Professionals - experts in the field	0	10	20	No. of individuals	View
Dissemination and awareness actions	[IT, FR, EL, ES]	Pupils (of school age)	0	500	1000	No. of individuals	View

Figure 34. Networking indicator

Networking actions are expected to be carried out with different types of people, including higher education students through conferences or seminars (Figure 35), professionals and experts in the field of application of the project through direct contact with other projects or by other means (Figure 36) and school children through activities with schools (Figure 37).

Edit values for Indicator: 12.1. Networking (mandatory)

Specific context*: Dissemination and awareness actions

Indicator descriptor*: Students (in higher education)

Indicator values: Provide values later:

At the beginning: 0.00 At the end: 100.00 Beyond 3 years: 200.00 Unit: No. of individ...

Indicator flags: Choose the Networking tools used:
Seminars

Comments:

Figure 35. Networking - Students (in higher education)

Edit values for Indicator: 12.1. Networking (mandatory)

Specific context*: Dissemination and awareness actions

Indicator descriptor*: Professionals - experts in the field

Indicator values: Provide values later:

At the beginning: 0.00 At the end: 10.00 Beyond 3 years: 20.00 Unit: No. of individ...

Indicator flags: Choose the Networking tools used:
Other Networking tools

Comments: Number of experts

Figure 36. Networking - Professionals – experts in the field

Edit values for Indicator: 12.1. Networking (mandatory)

Specific context*: Dissemination and awareness actions

Indicator descriptor*: Pupils (of school age)

Indicator values: Provide values later:

At the beginning: 0.00 At the end: 500.00 Beyond 3 years: 1,000.00 Unit: No. of individ...

Indicator flags: Choose the Networking tools used:
Other training or educational events X

Comments: Day of activities with schools

Figure 37. Networking - Pupils (of school age)

3.4.9. Jobs

This indicator evaluates the project's capacity to generate jobs (Figure 38).

Specific Context	Selected Overarching Context Items	Descriptor	Begin Value	End Value	Beyond 3 Years Value	Unit	
Conservation Actions	[GR4110004, E50000020, FR9302001, E50000260]	Jobs	0	10	10	No. of FTE	 View

Figure 38. Jobs indicator

It is expected that up to 10 jobs will be created during the course of the project for the implementation of the different project actions (Figure 39).

Edit values for Indicator: 13. Jobs

Specific context*: Conservation Actions

Indicator descriptor*: Jobs

Indicator values: Provide values later:

At the beginning: 0.00 At the end: 10.00 Beyond 3 years: 10.00 Unit: No. of FTE

Indicator flags: Choose the Age group:
25-54 X 15-24 X

Choose the Gender of the employee(s):
Female X Male X

Choose the Level of education:
Tertiary (ISCED levels 5-8) X

Choose the Specificities of the employees:
Skilled X

Other specificities:
Select any flag(s)

Comments: Number of jobs created during the project

Figure 39. Jobs - No. of FTE Jobs

3.4.10. Running cost/operating costs during the project and expected in case of continuation/replication/transfer after the project period

The last indicators incorporated in the Webtool KPI have been those related to the contribution to economic growth.

In the first place is the present indicator shown in Figure 40, which evaluates the overall operating cost of project development.

Specific Context	Selected Overarching Context Items	Descriptor	Begin Value	End Value	Beyond 3 Years Value	Unit	
Conservation Actions	[GR4110004, ES0000020, FR9302001, ES0000260]	Running cost/operating costs during the project and expected in case of continuation/replication/transfer after the project period	0	2749322	2349322	€	View

Figure 40. Running cost/operating costs during the project and expected in case of continuation/replication/transfer after the project period indicator

The values of this KPI indicator are given by the proposal approved by CINEA for the LIFE PINNARCA - LIFE20 NAT/ES/001265 project. It is expected that the budget established in the proposal will be met at the end of the project and will increase after its conclusion (Figure 41).

Edit values for Indicator: 14.1. Running cost/operating costs during the project and expected in case of continuation/replication/transfer after the project period

Specific context*: Conservation Actions

Indicator descriptor*: Running cost/operating costs during the project and expected in case of continuation/replication/transfer after the project period

Indicator values: Provide values later:

At the beginning	At the end	Beyond 3 years	Unit
0.00	2,249,322.00	2,349,322.00	€

Comments: This amount is for the whole project in general, not only for conservation actions.

Figure 41. Running cost/operating costs during the project and expected in case of continuation/replication/transfer after the project period - Total costs during the project and beyond 3 years

3.4.11. Future funding

This indicator includes the possible financial contribution to the achievement of the project's objectives after its conclusion (Figure 42).

Specific Context	Selected Overarching Context Items	Descriptor	Beyond 3 Years Value	Unit	
Conservation Actions	[GR4110004, ES0000020, FR9302001, ES0000260]	Beneficiary own contribution	54000	€	View

Figure 42. Future funding indicator

In the case of this project, it is expected that the partners themselves will make future financial contributions as shown in Figure 43.

Edit values for Indicator: 14.3. Future funding

Specific context*: Conservation Actions

Indicator descriptor*: Beneficiary own contribution

Indicator values: Provide values later:
Beyond 3 years: 54,000.00 Unit: €

Comments: We estimate a salary contribution from the partners of 3000 euros per year for 6 partners and 3 years.

Figure 43. Future funding - Beneficiary own contribution

3.4.12. Entry into new geographic areas

Due to the orientation and objectives of the LIFE PINNARCA project, and the location of the different optimal areas for *Pinna nobilis* habitat along the Mediterranean Sea, an indicator has been included for entry into new geographic areas (Figure 44).

Specific Context	Selected Overarching Context Items	Descriptor	
Conservation Actions	[GR4110004, ES0000020, FR9302001, ES0000260]	HRVATSKA (CROATIA)	View
Conservation Actions	[GR4110004, ES0000020, FR9302001, ES0000260]	MALTA	View

Figure 44. Entry into new geographic areas indicator

It is expected to expand the activity area of the project's actions in both Croatia (Figure 45) and Malta (Figure 46).

Edit values for Indicator: 14.4.3. Entry into new geographic areas

Specific context*: Conservation Actions

Indicator descriptor*: HRVATSKA (CROATIA)

Comments: We hope to search for fan mussels survivors in collaboration with local stakeholders.

Figure 45. Entry into new geographic areas - Croatia

Edit values for Indicator: 14.4.3. Entry into new geographic areas

Specific context*: Conservation Actions

Indicator descriptor*: MALTA

Comments: We hope to search for fan mussels survivors in collaboration with local stakeholders.

Figure 46. Entry into new geographic areas - Malta

4. KPIs actual values

Up to the date of writing this document, all the information shown in each of the sections shown in the Webtool KPI has been compiled from the different activities carried out by the project partners.

- Fundación Universidad Católica de Valencia - IMEDMAR (**IMEDMAR-UCV**)
- Agencia Estatal Consejo Superior de Investigaciones Científicas (**CSIC**)
- Ecologistas en Acción Región de Murcia (**EEARM**)
- Institut Océanographic Paul Ricard (**IOPR**)
- Institut de Recerca i Tecnologia Agroalimentàries (**IRTA**)
- Universidad de Alicante (**UA**)
- University of the Aegean (**UAEGEAN**)
- Università degli Studi di Napoli Federico II - Dipartimento di Biologia (**UNINA-DB**)

Table 8 in Section 4.13. shows all the information collected on the current status of the KPIs established in the Webtool KPI.

4.1. Project area/length

4.1.1. Monitoring actions

Up to the date of completion of this deliverable, monitoring actions have been carried out on around 50% of the area that was planned at the beginning of the project.

In the case of Alfacs Bay, given the large surface area of the bay (about 49 km²), a modelling approach using distance sampling was considered the best approach to assess the number of remaining individuals. To this end, a total of 75 transects perpendicular to the shore were conducted using 0-120 cm depth sections during 2022. The remaining sections of transects from 120 to about 3 m were partially conducted with scuba and will be completed in 2023 (29 transects remain on the Banyà peninsula, which is the densest and most extensive area in terms of suitable habitat for pen shells).

In addition to the counted area indicated in Table 7, UNINA-DB has subcontracted the University of Zadar to monitor different areas of the Adriatic Sea (not included in the proposal), where live specimens have been found in Krka River, Pivlaka bay and Velebit Channel. The area where monitoring has been carried out amounts to **25 ha**.

Over the next year, many surveys will be carried out by different members of the consortium, so the number of monitored areas will increase for the next deliverable DD5.2. Second Project Impact Report.

4.1.2. Conservation actions

Concerning Action C1 - Installation of larvae collector, collectors of different types have been deployed in the different areas with presence of living individuals in Venice lagoon, Lake of faro and the Ebro Delta (ca. 50 m² within the area of 39,3 Ha of the Fangar Bay, and in three sites of the Alfacs Bay: inner part of the Northern Coast, Trabucador sandbar, and central part of the

Banya Peninsula). Besides, collectors were also installed in mussel rafts in order to assess possible drift of larvae outside pen shell areas. Unfortunately, no juveniles were recovered in any of the collectors deployed.

Concerning Action C6 - Actions for environmental improvement in fan mussel sanctuary areas, in September 2022, IRTA finally obtained the permit for deployment of the sediment fences and the construction started. The deployed fence has a total length of 210 x 1.5 m width and is located just in front of the Ala drainage channel.

4.2. Humans (to be) influenced by the Project

This value is obtained by considering that 1% of the people who have seen or attended the different dissemination actions, such as newspaper publications, TV appearances or organised events, have been influenced.

At the time of writing this report, the results of views of the publications shown in Annex I have not been received.

Therefore, an estimate of the views has been made using the online application Similarweb, which in its free version provides information on the visits to the domain of each website for the last 3 months.

Ten of the newspapers registered in Annex I were used to obtain an average number of views for each of the newspaper publications. To do this, the average number of views for the three months shown in the Similarweb application for each newspaper was averaged, the average number of daily visits was obtained and it was estimated that 0.5% of the visits to the newspaper had viewed the publication related to the project.

To estimate the number of visits and people influenced by each of the publications (39 publications up to date), we have taken into account the views obtained on the same day of publication, and we have estimated that 1% of the people who have seen the publication have been influenced, as indicated in section 3.4.2 Humans (to be) influenced by the project of this document.

The calculations described above show that an average of 24 people have been influenced by each publication. The values obtained during the calculation procedure are shown in Table 6.

Table 6. Estimated Humans (to be) influenced by newspapers publications

Newspapers where it has been published	Views in the last three months (Obtained by Similarweb)			Average monthly views	Average daily views	Considered audience of the article	Humans (to be) influenced by the Project
	October	November	December				
Levante-EMV	11.100.000	15.000.000	14.000.000	13.366.667	431.183	2.156	21,56
Le Point	18.300.000	17.800.000	18.300.000	18.133.333	584.946	2.925	29,25
ForaVila	1.800	17.500	7.400	8.900	287	1	0,01
Carabinieri (Natura Magazine)	1.100.000	1.100.000	1.200.000	1.133.333	36.559	183	1,83
La Vanguardia	80.700.000	76.200.000	75.400.000	77.433.333	2.497.849	12.489	124,89
Diari de Girona	2.100.000	2.000.000	1.700.000	1.933.333	62.366	312	3,12
El Periodico	35.200.000	32.400.000	36.400.000	34.666.667	1.118.280	5.591	55,91
Ipacuicultura	4.300	29.500	10.500	14.767	476	2	0,02
AQUÍ - Medios de Comunicación	15.200	19.100	14.700	16.333	527	3	0,03
Valencia Plaza	4.300.000	3.500.000	3.700.000	3.833.333	123.656	618	6,18
Averages	15.282.130	14.806.610	15.073.260	15.054.000	485.613	2.428	24

By multiplying 24 people influenced per publication with the 39 publications (included in Annex I), it is estimated that **936 people** have been influenced by the publications of different newspapers.

In the case of the documentary shown on TV on Apunt's TerraViva programme, the share of the video has been obtained, reaching up to 30,000 viewers, which is equivalent to **300 humans influenced** (1% of viewers).



Figure 47. Viewers obtained by TerraViva TV documental (Apunt)

Using the values of KPI 12.1. Networking shown in Table 8, the audience of the different conferences, congresses and the visits to the website, the values of Humans influenced by the project have been obtained and it has been estimated that **44 people have been influenced** by all these activities.

In total, with all the data discussed above, it has been estimated that 1280 people have been influenced up to date. (See Table 8)

4.3. Natural and semi-natural habitats

4.3.1. Delta del Ebro

Collectors were mostly installed in seagrass beds of *Cymodocea nodosa* within the Natura 2000 zone, both in the Fangar and Alfacs Bay, with the only exception of the mussel drafts (Alfacs). In each deployment zone (4 in Alfacs and 1 in Fangar), Mar Menor/Kalloni Gulf/Brusc Lagoon

In Mar Menor, the status of *Pinna nobilis* specimens is being monitored repeatedly after each eutrophication.

4.4. Wildlife species

Fangar Bay: a total of 179 new individuals were found in the 39.3 Ha evaluated, which were mostly young adults and adults (only 1 juvenile > 20 cm was observed).

Alfacs Bay: numerous new individuals were found within the 75 transects conducted and abundances will be used to approximate the remaining population in the entire bay using the Distance Sampling software. As the new individuals have been obtained by modelling approach and the remaining transects will be completed in 2023, the number of new individuals has not been included yet, they will be included in the next deliverable DD5.2. Second Project Impact Report.

Croatia: in the surveys carried out by the University of Zadar, subcontracted by UNINA-DB, 15 new individuals have been found.

4.5. Involvement of non-governmental organisations (NGOs) and other stakeholders in project activities

Up to date we have been in contact, developing networking activities with “Azul Marino” Foundation (<https://www.azulmarino.org/>), whose aim is the sensibilization about the importance of the conservation of the marine environment.



Figure 48. Networking with Azul Marino Foundation (14/06/2022)

4.6. Website

The number of visits to the website has been obtained by monitoring the visits counter located at the bottom of the project website (www.lifepinnarca.com), which allows to obtain updated information on the number of visits to the website at any time.

4.7. Other tools for reaching/raising awareness of the general public

4.7.1. Number of events/exhibitions organised

Currently, 1 of the initially planned events has been organised and carried out.

The event organised was the Life Pinnarca Public Presentation Event, held on 28th April 2022, in the Veles i Vents building in the Marina (Valencia). This event was attended by representatives of all the members of the consortium, as well as different media to ensure the dissemination of the event.



Figure 49. Members of the consortium and NEEMO coordinator in the presentation event in Veles i Vents (Valencia)

The event was recorded and uploaded to YouTube <https://www.youtube.com/watch?v=UqTuQhn0P6M> in order to disseminate the event on the project and consortium members' website and social networks.

In addition, a contest has been organised by IMEDMAR-UCV for the selection of the project mascot, resulting in the logo used to identify the project, as well as the project mascot that will be used for merchandising for the dissemination of the project, both shown in Figure 48.



Figure 50. Pinnarca Logo and Mascot

All the information about the competition process for the selection of the mascot is available in deliverable DE1.2. Pinnarca Mascot.

4.7.2. Number of different publications made

In terms of scientific publications, 2 scientific articles have been published by the UA:

- The relict population of *Pinna nobilis* in the Mar Menor is facing an uncertain future. Marine Pollution Bulletin - 2022. <https://doi.org/10.1016/j.marpolbul.2022.114376>

- On the Presence and Ubiquity of the Exotic *Batophora* (J. Agardh) in the Mar Menor Lagoon (SE Spain). Water - 2022. <https://doi.org/10.3390/w14182909>

In this moment, a scientific publication named “Reiterative mortality of *Pinna nobilis* from the Mar Menor coastal lagoon following eutrophication events” led by the UA in collaboration with IRTA is in review and will be published in 2023.

In terms of Conferences, various conferences have been attended by members of the consortium.

IOPR:

- **Introduction to *Pinna nobilis* context in the Thau lagoon et Life Pinnarca project**, under invitation of the steering committee of sites Natura 2000 « Étang de Thau et lido de Sète à Agde - FR9112018 » et « Herbiers de l'étang de Thau - FR9101411 ». 30/11/2021.
- **5th International Days of Limnology and Oceanography (JILO)**, University of Corsica (Campus Grimaldi, Corte) 10/10/2022-13/10/2022



Figure 51. Mathieu Foulquié (IOPR) - 5th International Days of Limnology and Oceanography

IRTA

- **100tifiques 2022**: event organized annually by the Catalanian Government and aimed at promoting research among girls and teenagers. The topic of the talk was “The pen shell in the Ebro Delta”, one of the last sanctuaries of the species”.
- **University of Alicante**: Talk addressed to the students of the Master's Degree in ‘Biodiversity Conservation and Restoration of the Marine and Terrestrial Environment’ with the topic "Mitigation of Impacts in the Marine Environment" an oral communication about their experience in the recovery of the remaining populations of *Pinna nobilis* in the Ebro Delta (3-3-2022)
- **XI FIRMA online 2022. Title**: "On the razor's edge: the pen shell, *Pinna nobilis*, more, threatened than ever" (22-11-2022). Attended by ca.

- **Tertulias científicas Universidad de Vic (magistral talk):** Title: “Pen Shell conservation in Catalonia: urgent managerial needs” (6-4-2022). [Link to see.](#)



Figure 52. Patricia Prado (IRTA) - Presentation in Tertulias científicas Universidad de Vic (magistral talk)

UA

- **13th European Conference on Ecological Restoration (SER Europe 2022):** Poster presented: "Survival and habitat characterization of *Pinna nobilis* in the Mar Menor lagoon".

UAEGEAN

- **15th Congress of Zoogeography and Ecology of Greece and Adjacent Regions (15th ICZEGAR),** hosted by the University of the Aegean, Department of Marine Sciences (12-15/10/2022). The poster “*Pinna nobilis*, in search for the surviving fan mussel population in Greece” (Figure XX) was presented by UAEGEAN during the Congress.

15th ICZEGAR Congress, Mytilini, Lesvos, 12-15 October 2022

Pinna nobilis, in search for the surviving fan mussel population in Greece

Orestis Papadakis, Evangelos Papadimitriou, Stelios Katsanevakis
Department of Marine Sciences, University of the Aegean, Greece

Introduction

The fan mussel, *Pinna nobilis* (Linnaeus 1758) is an emblematic protected species, endemic to the Mediterranean Sea and one of the largest bivalves in the world. In addition to the human stressors which have caused the decline of fan mussel populations, the cryptogenic parasite *Haplosporidium pinnac* caused a mass mortality event (MME) in the Mediterranean, which since the autumn of 2016 has led the species to the brink of extinction.

Since the first confirmed MME records in the Aegean Sea in 2018, fan mussel populations have been decimated in Greek seas. In an effort to track the progress of the MME, the present study attempted to assess the status of fan mussel populations in the Aegean and Ionian Seas by means of underwater visual surveys.

Methods

Between May and September 2022, 96 shallow (<20 m) and 7 deep (>20 m) independent underwater visual surveys which lasted 45 minutes each, were conducted in 13 marine areas across the Greek coastline (Fig.1). Dead, freshly dead (evaluated by the level of fouling on the shell) and alive *P. nobilis* individuals were counted. *P. nobilis* shell fragments and uprooted dead individuals, lying on the seabed were not counted. Each live individual's shell width was measured.

Results

Overall 2123 *P. nobilis* individuals were recorded, among which 88.5% were dead and 11.5% were alive (Fig. 1). No individuals were recorded during the deep censuses. The only surviving fan mussels were found in the semi-enclosed Gulfs of Amvrakikos and Kalloni in the Ionian Sea and the Aegean Sea.

In Amvrakikos Gulf 241 alive *P. nobilis* were recorded (Fig.2) in 36 conducted surveys, between 0.6 to 9,7 m depth and the mortality rate was estimated at 51,8%. The mean shell width of the living individuals was 9 cm. A small percentage (7,7%) of the dead individuals, were estimated to have died recently.

In Kalloni Gulf, Lesvos Island, 3 alive individuals were recorded in 2 conducted surveys between 0.5 to 2 m depth and the mortality rate was estimated at 96.6%.

Conclusions

This study documented the collapse of fan mussel populations in the majority of the areas investigated (Fig. 3), but also highlights

Fig. 1. Map of Greece depicting the mortality assessment of *Pinna nobilis* populations at 13 marine areas by September 2022.

the importance of the few remaining sanctuary areas which still hold surviving populations.

The presence of surviving populations in the semi-enclosed Gulfs of Amvrakikos and Kalloni, indicates that specific environmental conditions, such as extreme temperature and salinity, could limit *P. nobilis* mortality by *H. pinnac*. Systematic regular monitoring of these areas and especially the search for juveniles and recruits is highly important in order to observe a possible natural recovery and examine the methods for the fan mussel populations' protection and restoration.

The search for surviving *P. nobilis* populations or individuals, is crucial to guide conservation measures and increase the chances for the species' survival in Greek seas.

Acknowledgements

This study was conducted in the framework of the LIFE PINNARCA project (LIFE20 NAT/ES/001265), which has received funding from the LIFE Programme of the European Union.

Fig. 2. Surviving *P. nobilis* population in Amvrakikos Gulf, Ionian Sea (photo by O. Papadakis, August 2022).

Fig. 3. Dead *P. nobilis* population in Moudros Gulf, Lemnos Island (photo by O. Papadakis, June 2022).

Figure 53. Poster presented by UAEGEAN at 15th ICZEGAR (13-15/10/2022)

4.7.3. Number of different displayed information created

The different posters and information boards created during the project are compiled in the deliverables DE1.6. Notice Board & Roller up and DE2.1. Specific Leaflets and Brochures.

In addition, the IOPR has developed and installed an information board at Mèze beach (Figure 52).



Figure 54. Information board on Mèze beach

4.7.4. Number of articles in print media

Several publications have been made by all the members of the consortium in different media, such as newspapers, digital press, sector magazines... A list of the different articles in newspapers is shown in the Annex I.

Below are some examples of all the dissemination carried out throughout the project.



ipac.
acuicultura

Directorio de empresas Noticias Publicidad Boletín Contacto

En Portada Última hora Empresas Ed. Digital Legislación Susc

Noticias » Última hora » La Universidad de Alicante y el Acuario de Murcia trabajarán dentro del ...

La Universidad de Alicante y el Acuario de Murcia trabajarán dentro del proyecto Life Pinnarca en la supervivencia de la población de nacra del Mar Menor

IPac. - 12 de mayo de 2022

[f](#) [t](#) [in](#) [p](#)



Nacras. Foto: Región de Murcia

Investigadores de la Universidad de Alicante (UA) forman parte del proyecto internacional Life Pinnarca cuyo objetivo, como informamos hace solo unos días, es la recuperación y restauración de la nacra (*Pinna nobilis*). En concreto, el Departamento de Ciencias de Mar y Biología Aplicada de la UA y el CIMAR (Centro de Investigación Marina de Santa Pola), junto con el Acuario de la Universidad de Murcia, buscan a través de este proyecto la supervivencia de la población de nacra del Mar Menor, una de las dos últimas poblaciones del litoral español. Actualmente quedan muy pocas poblaciones relictas de nacra en "santuarios" donde no se dan las condiciones óptimas de salinidad o temperatura para la supervivencia y proliferación de protozoo *Haplosporidium pinnae* -que está causando efectos devastadores en esta especie-, como es el caso del Mar Menor o el Delta del Ebro.

"Por desgracia, superpuesto a la amenaza del patógeno, la población de nacras del Mar Menor también se ha visto afectada por la grave crisis de eutrofización que sufre esta laguna costera, por lo que los investigadores de la Universidad de Alicante han activado un programa de monitorización intensivo para controlar el estado de la población superviviente", explica la investigadora de la Universidad de Alicante, Francisca Giménez. También colaboran con el Acuario de la Universidad de Murcia para el mantenimiento de esta especie "ex situ" y con la instalación de colectores de larvas para conocer el reclutamiento natural en esta zona.

Dentro del proyecto LIFE Pinnarca, y así lo destaca la Universidad de Alicante, ya se ha comenzado con algunas de las acciones a realizar, como el estudio de los organismos epibiontes que colonizan las valvas de las nacras, la toma de datos de tallas de los ejemplares o la planificación de las futuras actividades de ciencia ciudadana que se llevarán a cabo en el Mar Menor.

Figure 57. Universidad de Alicante: Ipacuicultura - (12/05/2022)

#Natura

L'eco del mare

di Pasquale Raicaldo



SOS
PINNA
NOBILIS

Può arrivare a 70 centimetri di altezza e a un massimo di 45 anni di età: caratteristiche che ne fanno il più grande mollusco bivalve del Mediterraneo. Ma la *Pinna nobilis*, comunemente detta nacchera di mare, rischia fortemente di estinguersi, con conseguenze nefaste sulla biodiversità e sull'equilibrio dei nostri ecosistemi marini. La colpa è soprattutto di qualcosa di simile a una pandemia, che ha già portato alla scomparsa del 97% degli esemplari, quasi un'ecatombe: l'azione combinata di un protozoo, *Haplosporidium pinnae*, e di un batterio. Il secondo arriverebbe dall'Africa, complici – come accade spesso anche per le specie cosiddette "aliene" – le acque di sentina delle navi: migrazioni accidentali che attentano alla sopravvivenza di specie più vulnerabili. Proprio come la *Pinna nobilis*, già minacciata negli anni dalla raccolta a scopi ornamentali, dalla pesca ricreativa, dall'ancoraggio selvaggio e dai raccoglitori di "bisso", la sostanza filamentosa che gli artigiani dei borghi marinari utilizzavano per la tessitura di abiti e indumenti. "Ma è dal 2016 che abbiamo notato una mortalità di massa della specie, dalla Spagna alla Grecia, dalla Francia all'Italia", racconta Francesca Carella, docente di Patologia degli organismi acquatici alla Federico II di Napoli. "Oggi è chiaro a tutti che se non si interviene i pochi individui resistenti moriranno nel tempo senza lasciare progenie, mentre le popolazioni presenti ancora nelle aree-rifugio non saranno in grado di ripopolarsi", prosegue la biologa marina. Occorre scendere in campo per scongiurare un

declino che potrebbe causare non pochi effetti-domino: la *Pinna nobilis* è un biostrutturatore, in grado cioè di favorire lo sviluppo, tutt'intorno, di una comunità di organismi, alghe e spugne *in primis*. "E non finisce qui" aggiunge Carella – in quanto svolge un ruolo particolarmente importante nel filtro delle acque marine e nella prevenzione dell'erosione costiera, opponendosi al moto ondoso". Così, per fronteggiare il pericolo di estinzione – certificato anche dal nuovo status sulla lista dell'Unione Mondiale per la Conservazione della Natura (IUCN) – sono nati importanti progetti di protezione. Come l'europeo LIFE Pinnarca, che coinvolge i principali Paesi del Mediterraneo interessati da fenomeni di mortalità (Italia, Spagna, Grecia, Croazia e Francia). L'obiettivo è approfondire i meccanismi della mortalità, effettuare una caratterizzazione del sistema immunitario della specie e aumentare la consapevolezza su scala globale, riducendo per esempio la possibilità di atti vandalici e illegali, come raccolta delle restanti nacchere. E ancora, creando una banca dati sulle popolazioni resistenti, sviluppando azioni di recupero attive, anche – laddove necessario – trasferendo individui vulnerabili in ambienti più sicuri. Nella stessa direzione va il progetto LIFE Pinna, al quale contribuiscono Trifon Research, IRPA e le Università di Genova e Sassari, che prevede la raccolta di esemplari in fase giovanile da destinare all'allevamento in cattività e l'allevamento in cattività di esemplari da reinserire in natura. Tutti insieme per la *Pinna nobilis*, prima che sia troppo tardi.

#Natura **73**

Maggio-Agosto 2022

Figure 59. UNINA: Natura Magazine (12/05/2023)

4.7.5. Other distinct media products created

At the beginning of the project, it was established that a documentary video of the project would be made, included as deliverable DE1.5 Video of 10 min and a short video of 1-2 min, which is currently being recorded.

However, this section also includes the leaflets developed during the project and other types of dissemination, which can be consulted in the deliverables DE1.1. Leaflets and DE2.1. Specific Leaflets and Brochures.

On the other hand, thanks to the efforts dedicated by the members of the consortium to dissemination actions, different publications are being carried out in media that were not initially included in the Initial Table of LIFE Key Project Level Indicators.

Among the various media products carried out, the following can be found:

- Radio interview with Patricia Prado (IRTA) - El Far FM - 23/05/2022. [Link to see.](#)
- TV documentary with Patricia Prado on Delta del Ebro - España Directo (RTVE) - 08/06/2022. [Link to see.](#)



Figure 60. Documental TV España Directo en Delta del Ebro - 08/06/2022

- TV documentary on IMEDMAR - TerraViva (Apunt) - 19/07/2022. [Link to see.](#)



Figure 61. Documental TV TerraViva (Apunt) en IMEDMAR - 19/07/2022

4.8. Networking

Several networking activities have been carried out by the consortium partners. Activities have been carried out with European projects, as well as with specialists in the field and students, with the aim of establishing synergies and increasing the dissemination of the project and raising public awareness.

Networking events in which the partners of the consortium have participated include:

IMEDMAR-UCV

- **EU-CONEXUS: Networking with the University of Zadar (Croatia) for the project "ADRIREEF: Innovative exploitation of Adriatic Reefs in order to strengthen blue economy" (16/05/2022)**, which aims at enhancing the attractiveness of existing marine resources in order to promote sustainable economic development, such as mapping, monitoring and promotion of lesser-known natural areas and implementation of artificial reefs as suitable substrata for new sustainable ecosystems.



Figure 62. IMEDMAR-UCV: Networking with ADRIREEF project

- **Assistance to the Workshop “Restoration Programme of *Pinna nobilis*”**: Rafa García assisted to the Workshop that took place on Tunisia talking about the work and goals of the LIFE PINNARCA Project (LIFE20-NAT/ES/001265).



Figure 63. IMEDMAR-UCV: Workshop “Restoration Programme of *Pinna nobilis*” on Tunisia.

- **VI Day of waste collection from the seabed of the port of Calpe and Las Salinas (26/11/2022)**: For the "European Science Week of the UCV" a public day for the collection of marine litter was organised together with the Calpe Town Council, the Calpe Fishermen's Guild and the Rotary Club. During the programmed activities, a visit was made to the IMEDMAR-UCV facilities where marine species were shown and the objectives of the LIFE PINNARCA project were explained to the public.



Figure 64. IMEDMAR-UCV: VI Jornada recogida de residuos

- **Networking with the Albufera Natural Park team (17/11/2022)**: Meeting with the Director, head of the Management service and the Technical Office team of 'Albufera Natural Park'. In this meeting, the possibilities of this natural environment as a possible place of reception for specimens of *Pinna nobilis* have been evaluated, for which actions have been programmed to be able to evaluate the characteristics of the waters that could be suitable.



Figure 65. IMEDMAR- UCV: Networking with the Albufera Natural Park team

- **Visit of different Institutes to IMEDMAR-UCV facilities.** During the visits, we talk about the fan mussel, its importance in the ecosystem and the work that is being carried out for its conservation through the LIFE PINNARCA project.
 - **27/05/2022:** “San José de la Montaña” Secondary Education Institute from Oliva (Valencia)
 - **08/06/2022:** Bellaguarda Secondary Education Institute from Altea (Alicante)
 - **09/06/2022:** Antoni Llidó Secondary Education Institute from Altea (Alicante)
 - **13/06/2022:** Elian's British School, La Nucia (Valencia)
 - **14/06/2022:** Bernat De Sarrià Secondary Education Institute from Benidorm (Valencia)
 - **15/06/2022:** Bernat De Sarrià Secondary Education Institute from Benidorm (Valencia)



Figure 66. IMEDMAR-UCV: Visit of different Institutes to IMEDMAR-UCV facilities.

IMEDMAR-UCV

With the elaboration of the different Networking activities that UCV has been carrying out up to the date of this deliverable, contact has been established with the following specialists:

- Waterford Institute of Technology, Department of Engineering Technology, Ireland: Jason Berry.
- Institute for Environment and Nature, Ministry of economy and sustainable development, Republic of Croatia: Srđana Rožić, Senior expert advisor.
- Specially Protected Areas Regional Activity Centre (SPA/RAC) of Tunisia: Khalil ATTIA, SPA/RAC Director

IRTA

IRTA has established contact with different entities with the aim of increasing the dissemination of the project. The following is a list of the entities with which networking has been carried out and the contacts obtained from these actions.

- Forestal Catalana: Dr. Miguel Ángel López
- Fundación Zoo de Barcelona: Dr. Pablo Cermeño
- SEO BirdLife: Dra. Sofia Rivaes
- TragsaTec

UA

Thanks to the participation in conferences, congresses and networking with other entities, contact has been established with different specialists in the sector, whose collaboration has given rise to some publications made by the AU in scientific journals.

- TragsaTec: Francisco Javier Giménez Martín
- Aquarium of the University of Murcia: Javier Murcia, Rosa Canales-Cáceres.
- Bigelow Laboratory for Ocean Sciences: José Antonio Fernández Robledo
- Miguel Angel Benavente Pérez
- Emilio Aledo
- Carlos Castejón

4.9. Jobs

At present, the jobs corresponding to those indicated in the proposal have been created for each partner. On the other hand, a number of staff contracts are still missing in some entities, which will be released at the beginning of 2023.

4.10. Running cost/operating costs during the project and expected in case of continuation/replication/transfer after the project period.

Up to date, the total cost of the project implementation is detailed by type of cost in Table 7.

Table 7. Consolidated cost statement until 30/11/2022

CONSOLIDATED COST STATEMENT FOR THE PROJECT		
LIFE20 NAT/ES/001265 - PINNARCA		
Statement of EXPENDITURES	Proposal Budget	30/11/2022
Personnel		
Travel		
External assistance		
Equipment		
Consumables		
Other direct costs		
Overheads		
TOTAL		

4.11. Future funding

This section will be evaluated in deliverable DD5.3 Final Project Impact Report.

4.12. Entry into new geographic areas

4.12.1. Croatia

For now, shallow census has been done in three different locations in the Croatian part of the Adriatic Sea: Krka River, Privlaka bay and Velebit Channel all the Bay perimeter (ca. 5-10 km) allowed the observation of alive individuals.

Networking has also been carried out with the University of Zadar, so that efforts are currently being made to enter new geographical areas where there may be optimal areas for locating live or resistant specimens of *Pinna nobilis*, in this case in areas of the Adriatic Sea.

4.12.2. Malta

There is no progress at the moment on entry into this geographical area.

4.13. KPIs actual values table

Table 8. KPIs actual values table

Indicators	Specific Context	Descriptor	Units	Beginning value	En of the project value	Beyond 3 years value	Actual value
1.5. Project area/length	Monitoring actions	Area of environmental/climate implementation actions (e.g. development, testing, demonstration, application of best practices/innovations).	ha	0	516	516	256,3
	Conservation actions	Conservation or improvement of the status of an area or segment	ha	0	301	301	39,3
1.6. Humans (to be) influenced by the project	Dissemination and awareness actions	Persons who may have been influenced via dissemination or awareness raising project-actions (reaching)	Number of other persons influenced /impacted independently of the project area	0	5.000	7.000	1.280
7.3. Natural and semi-natural habitats	Conservation actions	Annex I Habitats Directive - Delta del Ebro	ha	15	15	15	15
	Conservation actions	Annex I Habitats Directive - Mar Menor/Kalloni Gulf/Brusc Lagoon	ha	286	286	286	114
7.4. Wildlife species	Monitoring actions	Annex IV Habitats Directive species - <i>Pinna nobilis</i>	number of individuals	5.000	9.000	18.000	194
			ha	15.000	15.000	15.000	70
10.2. Involvement of non-governmental organisations (NGOs) and other stakeholders in project activities	Dissemination and awareness actions	NGO	Number of stakeholders involved due to the project	0	4	10	1

Indicators	Specific Context	Descriptor	Units	Beginning value	En of the project value	Beyond 3 years value	Actual value
11.1. Website	Dissemination and awareness actions	No. of unique visits	Number of unique website visits	0	2.500	6.000	865
11.2. Other tools for reaching/raising awareness of the general public	Dissemination and awareness actions	Number of events/exhibitions organised	Number of outcomes	0	2	2	2
		Number of different publications made (Journal/conference)	Number of outcomes	0	8	10	10
		Number of different displayed information created (posters, information boards)	Number of outcomes	0	2	2	5
		Number of articles in print media (e.g., newspaper and magazine articles)	Number of outcomes	0	10	15	39
		Other distinct media products created (e.g., different videos/broadcast/leaflets)	Number of outcomes	0	1	2	7
12.1. Networking	Dissemination and awareness actions	Students (in higher education)	No. of individuals	0	100	200	276
		Professionals - experts in the field	No. of individuals	0	10	20	18
		Pupils (of school age)	No. of individuals	0	500	1.000	241
13. Jobs	Conservation actions	Jobs	No. of FTE	0	10	10	7
14.1. Running cost/operating costs during the project and expected in case of continuation/replication/transfer after the project period	Conservation actions	Running cost/operating costs during the project and expected in case of continuation/replication/transfer after the project period	€	0	2.249.322,00 €	2.349.322,00 €	██████████

Indicators	Specific Context	Descriptor	Units	Beginning value	En of the project value	Beyond 3 years value	Actual value
14.2. Future funding	Conservation actions	Beneficiary own contribution	€	-	-	54.000,00 €	-
14.4.3. Entry into new geographic areas	Conservation actions	HRVATSKA (CROATIA)	-	-	-	-	-
	Conservation actions	Malta	-	-	-	-	-