4th Deliverable

FINAL REPORT

Design and implement monitoring activities to assess Marine Protected Areas ecological and fisheries effectiveness: improving MPA's manager skills

FishMPABlue 2 Interreg project "Transfering and Capitalisating" Applying the "governance toolkit"

Zakynthos, Greece 2019

MANAGEMENT AGENCY OF THE NATIONAL MARINE PARK OF ZAKYNTHOS

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On behalf of the National Marine Park of Zakynthos

Contents

This document forms the FINAL deliverable of the National Marine Park of Zakynthos according to the signed (20/8/2019) contract with ref. number 56/19 (Project code: Interreg Med FishMPABlue 2, P02276; Project activity PA02276.W5).

BACKGROUND

Taking into consideration the methodologies which were adopted and implemented in the framework of the FISHMPABLUE2 project, the objective of the consultancy was twofold:

a) to propose a package training session(s) with a precise methodology for increasing MPAs' staff's skills on how to design and implement monitoring activities to assess Marine Protected Areas ecological and fisheries effectiveness. A draft scheme could be as follows.

b) to coordinate and organize on site practical activities to train MPA managers

A two days field work will be organized for 20 participants at the MPA of Zakynthos for the training of the participants

The specificities will be arranged with the FISHMPABLUE2 team.

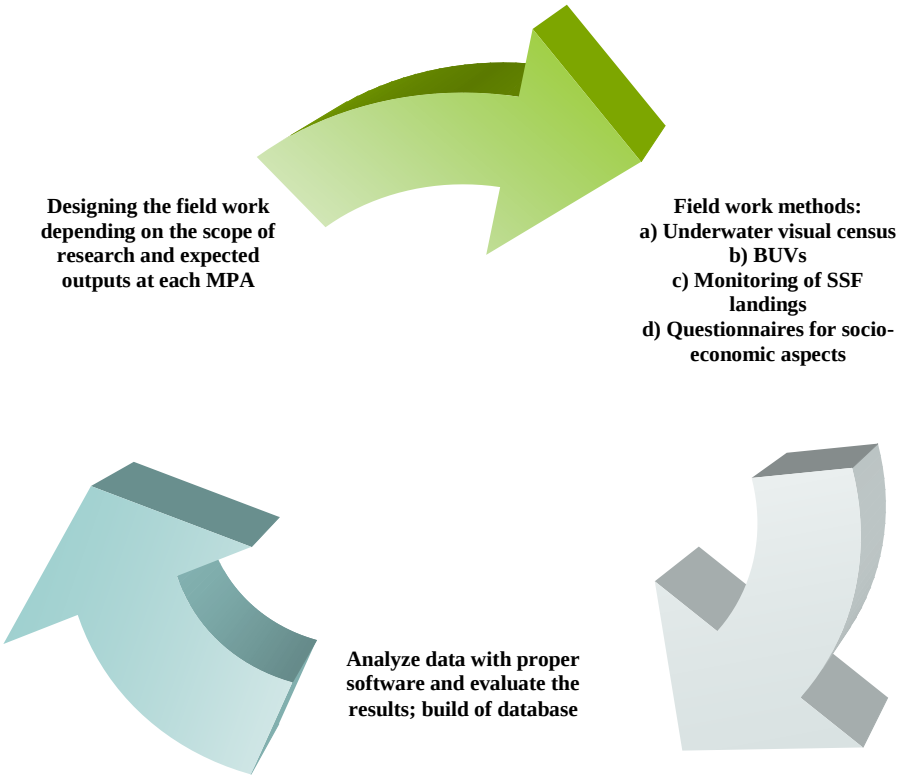

Figure 1. Schematic diagram of the work flow during the training session at Zakynthos MPA

METHODOLOGIES

The training sessions will be discriminated in two major axis, with the first being a series of interactive lectures on how to design monitoring activities depending on the context of each MPA type (e.g. fully protected, partially protected), the methodologies applied as well as the data analysis after data collection. The second axis consists of field exercises in which the trainees will practice on the proposed methodologies. All the above will be intergraded on the MPA management context and how to include them in the recurrent monitoring procedures of each MPA for decision making purposes. Finally, management strategies for SSF will be also presented and discussed as well as experience gained and capacity building. The details of the applied methodologies that will be implemented in the field and presented to the trainees through lectures are described below.

1. Underwater visual census (UVC)

The underwater visual census can be considered as a standard method to monitor fish fauna and marine mega-fauna of shallow marine areas worldwide. The shallow coastal waters mainly consist of four habitat types that are all included in the EU Habitats Directive 92/43/EEC; namely, *Posidonia oceanica* (EU habitat code – EUhc: 1120), rocky reefs (EUhc: 1170), soft substrates (included in EUhc 1110), and marine caves (EUhc: 8330). However most studies are focusing on rocky reefs and *P. oceanica* meadows which represent the most productive habitats in the shallow sublittoral Mediterranean waters (Guidetti, 2000; Giakoumi and Kokkoris, 2013) and are most commonly sampled for the assessment of coastal fish assemblages in Mediterranean MPAs (e.g. Harmelin-Vivien et al., 2008; Sala et al., 2012; Villamor and Becerro, 2012; Seytre and Francour, 2013). In this framework the size and abundance data of fish species are collected by means of underwater visual census (Harmelin et al., 1995) performed by SCUBA diving at a fixed depth zone (usually ranging from 0 to 20m). The number of the sampled stations across areas with different protection status is a function of the hypothesis which is under scrutiny as well as logistic and funding constrains.
In any case at each sampling station, data are recorded along replicate belt-transects (usually ranging from 3 to 5 replicates) of 25×5m (125m^2) each, located several meters apart in a successive (straight line) fashion. Moving oneway along each transect at constant speed, the fish observer identifies, counts and estimates the size of all fish present within 2.5m distance
on either side of the line. All species encountered are recorded, except for small cryptic ones (e.g. Blenniidae and Gobiidae). Actual fish counts are recorded up to 20 individuals, while higher numbers are assigned to separate abundance classes (i.e. 21–30, 31–50, 51–100, 101–200, 201–500,>500 individuals), as proposed by Harmelin et al. (1995) and Harmelin-Vivien et al. (2008). Two divers are usually involved at each transect: one diver moves ahead and counts the fish while the second one follows with a rope that delineates the 25m length of the transect.

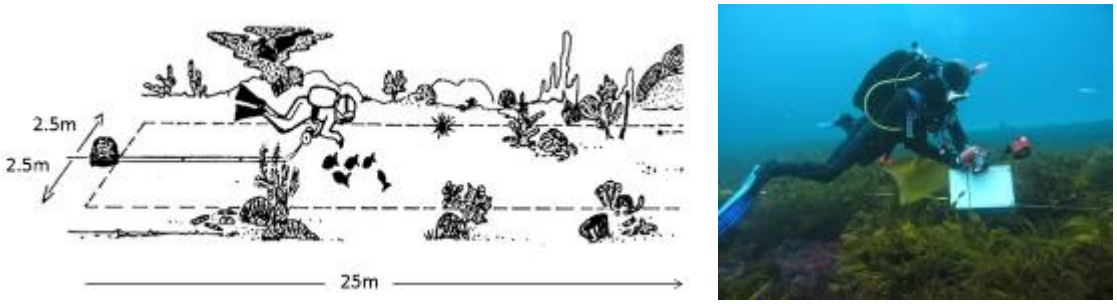

Figure 2. Schematic diagram of the implementation of the UVC method at shallow waters

The NMPZ will organize both the theoretical and field work sessions and will provide all the equipment to the participants (e.g. diving equipment, slates, ropes).

2. Underwater baited video (BUVs)

The use of video to study marine life has increased over the past twenty years, and a variety of video survey techniques are now commonly used for sampling marine populations (Mallett et al., 2014). Amongst others, the advantages of using video include the removal of the time and depth limitations associated with diver surveys, the potential for reductions in survey costs, the ability to check images as many times as necessary and the relative ease of training observers to process recordings. Importantly video sampling techniques are also non-extractive and therefore well suited for studies on marine protected areas (Stobart et al., 2007). While video techniques do not necessarily outperform traditional sampling techniques such as visual census, they are free from diver bias. In recent years the use of video systems has increased as technological improvements have made them cheaper and easier to use. Improvements include better video quality, increased filming times, a reduction in the size and cost of video recorders and changes to the recording media from tapes to direct storage on hard drives.
In principle this method uses bait to attract individuals into the field of view of a camera so that species can be identified and individuals counted. The video metrics that are usually used to estimate relative abundance include a value for total number of individuals per recording (TotN), the traditional maximum number of fish observed in a single video frame (MaxN), and the recently suggested alternative, the average of the mean MaxN from 5-minute periods throughout the duration of the recording (MeanN) (Stobart et al., 2015).

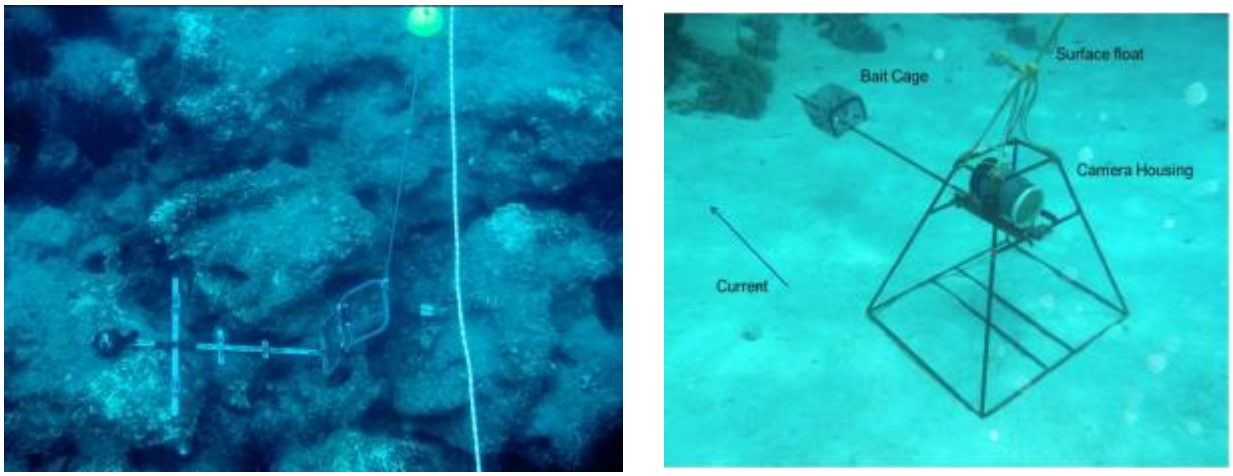

Figure 3. BUVs method at for monitoring fish species

The number of the sampled stations across areas with different protection status is a function of the hypothesis which is under scrutiny as well as logistic and funding constrains.

3. Small scale fisheries landings

In the framework of FISHMPABLUE2 project the small scale fisheries landings were measured by the use of a photographic method. The basic idea behind this approach is to decrease the time and effort needed to measure the length and weight of each individual caught by using a photo of several individual at the same frame. To this end multiple individuals are placed within a frame that includes a measure scale and a unique id code for each frame. Then a photo sample is taken which is stored for further process.

Figure 4. Photo-method for the recording of small scale fisheries landings at MPAs

The photo samples are then introduced to proper software in which the total length of each individual is measured after the identification of each specimen down to species level. The length measurement is finally used for the calculation of biomass by the use of length-weight relationship of each species.

4. Questionnaires for socio-economic aspects

The developed and implementation of quantitative questionnaire surveys targeting at small-scale fisheries in MPAs is gradually gaining increased attention from the managerial and scientific community. Traditionally these surveys (usually through structured interviews) are focusing on a broad set of questions related to the demographics (e.g., gender, age, education, location, origin, people in household) and characteristics (e.g., income from fisheries, diversification, dependence) of small-scale fishermen, as well as perceptions of social aspects, MPA management, compliance and enforcement. Therefore the design of such surveys is very case depended and largely relies upon the research objectives and goals. The implementation on the other hand requires delicate moves so as to ensure the participation of the fishers to the survey. After the design and implementation of the surveys, data handle and analysis follows. This part requires well trained staff in order to statistically process the data and extract trends and conclusions.

AGENDA

After a few meetings (via Skype) with IUCN Project Coordinator (focal point) and other project partners and WPs' leaders especially the University of Nice (in charge of the assessments – WP3) of the FISHMPABLUE2 project, we have formulated the following draft agenda.

Summer school "Design and implement monitoring activities to assess Marine Protected Areas ecological and fisheries effectiveness: improving MPA's manager skills"

22-27 September 2019, National Marine Park Zakynthos, Zakynthos, Greece

Agenda - Draft

Purpose: The goal of the summer school is increase MPAs' staff's skills on how to design and implement monitoring activities to assess Marine Protected Areas ecological and fisheries effectiveness. Specifically participants will be trained on the use of methodology and techniques of environmental (underwater visual census, baited underwater videos), economic (assessment of catches and their economic value) and social (questionnaires) monitoring aspects of small scale fisheries in MPAs.

Format: Lectures in classroom, practice in the field, practical sessions of data-handling and analyses

Lecturers: researchers from ECOSEAS (University of Nice, France), Conisma (Italy) and National Marine Park Zakynthos (NMPZ)

Location: National Marine Park Zakynthos, Zakynthos, Greece

Tentative Agenda:

23 September : Arrival of the participants

DAY 1 – 23 September

TIMING	ACTIVITY	TYPE and Lecturers	MATERIAL NEEDED
8:00	Participants registration	REGISTRATION	
8:45	Welcome to participants from NMPZ	OPENING	
8:50	Summer school agenda description	OPENING	
LECTURES			
9.00 AM – 9.30	General introduction on MPAs, MPA benefits, monitoring and socio-ecological assessment of	LECTURE	

	MPAs (Fish2 approach)		
9.30 – 10.30	Ecological assessment in MPAs: 1. Introduction to experimental design for conservation studies and 2. Non-destructive methods for assessing fish assemblages in MPAs	LECTURE	
BREAK			
11.00 – 12.00	Focus on Underwater Visual Census (UVC) and Baited underwater videos (BUV)	LECTURE	
12.00 – 13.00	Fish2 approach for ecological assessment: methods and main results	LECTURE	
LUNCH Break			
15.00 – 17.00	Species identification: main coastal families and species of the Mediterranean Sea	LECTURE	
17.00 – 18.00	Preparation to practical session: 1. how to perform UVC (fish recognition underwater), 2. How to perform BUV	LECTURE	

DAY 2 – 24 September 2019

TIMING	ACTIVITY	TYPE and Lecturers	MATERIAL NEEDED
8.00 AM – 8.30	Randezvous for the practical UVC session on the field at the port		
8.30 – 9.00	Briefing on the activity	PRACTICAL SESSION (FIELD ACTIVITY)	
9.00 – 16.00	Field activity: practical session on UVC. Participants will be divided in groups of 3-4 persons, each guided by an expert.	PRACTICAL SESSION (FIELD ACTIVITY)	Diving equipment, UVC equipment

DAY 3 – 25 September 2019

TIMING	ACTIVITY	TYPE and Lecturers	MATERIAL NEEDED
8.00 AM – 8.30	Randezvous for the practical BUV session on the field at the port		
8.30 – 9.00	Briefing on the activity	PRACTICAL SESSION (FIELD ACTIVITY)	
9.00 – 12.00	Field activity: practical session on BUV. Participants will be divided into 2 groups, each guided by an expert.	PRACTICAL SESSION (FIELD ACTIVITY)	
LUNCH			
14.30 – 18.00	Practical session on data extraction and analysis - Participants will be divided in groups of 3-4 persons and will work on the UVC and BUV data they collected in field	PRACTICAL SESSION (DATA MANAGEMENET AND ANALYSIS)	Participants should bring their own laptop for this activity

DAY 4 – 26 September 2019

9.00 AM – 10.00	Economic assessment in MPAs – methods and brief results of Fish2	LECTURE	
10.00 AM – 10.30	Guide to the practical session - Methodology of ssf monitoring in MPA: from photo-sampling to data analysis	LECTURE	
BREAK and preparation to field session			
10.45 AM – 13.00	Practical session for ssf data collection (photo-sampling)	PRACTICAL SESSION	Photo-camera or smartphone, rulers, notebooks, pens
LUNCH			
15.00 – 18.00	Practical session on data extraction and analysis - Participants will be divided in groups of 3-4 persons and will work on the data they collected in the morning	PRACTICAL SESSION	Participants should bring their own laptop for this activity

DAY 5 – 27 September

TIMING	ACTIVITY	TYPE and Lecturers	MATERIAL NEEDED
9.00 AM – 10.30	Social assessment in MPAs – Approach, methods and brief results from Fish2	LECTURE	
BREAK			
11.00 – 13.00	Summer-school wrap-up and closure	CLOSURE	
LUNCH			
13.00 – 18.00	Free afternoon/Field excursion		

28 September: Departure of the participants

FURTHER TASKS AND ACTIVITIES

The management agency of the National Marine Park of Zakynthos is committed to work closely with the IUCN Project Coordinator (focal point), with the others project partners and WPs' leaders especially the University of Nice (in charge of the assessments – WP3) and MedPan that will work on the dissemination (WP4) of the FISHMPABLUE2 project.

The staff of the NMPZ has attended an initial meeting (via skype) with the project coordinator and discussed the details for the organization of the training sessions (who is doing what, where and when). The attendance confirmation of the participants is due at the 30th of August 2019. This is extremely critical since the final number of participants will determine the next steps regarding the organization of the workshop.

SCHEDULE OF DELIVERABLES

The timeline of the consultancy will strictly follow the milestones of the call while the training session is proposed to be held from **23rd of September up to 27th of September** 2019. The inception report will be submitted upon contract signing.

Deliverables	Tentative Timeline
2019	
First draft on the methodology	included in the answer of the call
Plan to organize the training session	1 of August
Training sessions	No later than the 30 of September
Final report	15 of October

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Villamor, A., Becerro, M.A., 2012. Species, trophic, and functional diversity in marine protected and non-protected areas. J. Sea Res. 73, 109–116. http://dx.doi.org/10. 1016/j.seares.2012.07.002.

ARRANGEMENTS

1. Transportation

The transportation of the participants is proposed to be conducted by the local transportation company "Ionian Transport", the largest transport company of Zakynthos. In more detail, the proposed routes and the shuttle buses needed are as follows:

a) 22/9/2019: Two shuttle buses from the Airport to the Hotel Yria in Zakynthos Town.
b) 24/9/2019: One Shuttle bus (departure from Yria Hotel at 8:00 to Keri Lake and return at 16:00).
c) 25/9/2019: One Shuttle bus (departure from Yria at 8:00 to Keri Lake and return at 12:00pm).
d) 27/9/2019: One shuttle bus (departure from Municipality of Zakynthos at 13:00 to Laganas and return at 17:00).
e) 28/9: Three shuttle buses for the transportation of the participants from Hotel Yria in Zakynthos Town to the Airport (three persons departing at 8:00, three at 10:00 and three at 13:10).

2. Facilities

All the lectures as well as the data extraction and analysis from the practical sessions are proposed to be conducted at the seminar room of the NMPZ Management Agency's office, located in El.Venizelou 1 in Zakynthos town. During the lectures, the equipment of the seminar room as well as audiovisual material will be deployed.

Furthemore, information material will be distributed to all the participants. The information material will include a visitor's guide, integrated management handbook, a detailed map of the NMPZ, information material regarding the coastal-terrestrial habitats and flora, the marine fauna and flora, the avifauna, the marine turtle's biology and the sea turtle proper observation code of conduct.

Figure 2. Premises of the National Marine Park of Zakynthos

3. *Meals*

Between lectures, coffee breaks will be held for the participants. Elena's Bakery (traditional Greek bakery) is proposed to undertake the coffee breaks where the participants will be provided with a variety of refreshments (coffee, hot chocolate, juice, tea), snacks (sandwiches) and local sweets (cakes, biscuits).
Lunch and dinner is proposed to be offered by the traditional Greek restaurant "Alektor". The restaurant is located in the central square of Zakyntos (Solomos square), within 200m of the hotel and the office of the Management Agency where the lectures will take place. The participants will have the opportunity to taste a variety of local and Greek traditional dishes, accompanied by live music from local musicians. In total 9 meals will be provided for 20 participants, accounting a total of 180 meals.
The restaurant will also offer vegetarian and vegan dishes for any participants with special dietary needs.

4. *Accommodation*

The accommodation of the participants can be provided by Yria Hotel in Zakyntos town. The hotel is located very near to the office of the NMPZ Management Agency. In particular, the following rooms are needed:

a) Seven single rooms from 22/09/2019 (arrival) to 28/09/2019 (departure)
b) Two double rooms from 22/09/2019 (arrival) to 26/09/2019 (departure)
c) Four double rooms from 22/09/2019 (arrival) to 28/09/2019 (departure)

Moreover, breakfast will be included every day.

5. Activities

The field trip on 24/09 which includes a practical session on UVC, is proposed to take place at the marine area of Marathias (West Coast of Laganas Bay) in cooperation with Nero-Sport Diving Center. The boat which is required for the transport of the participants to the diving site as well as the full diving and snorkeling equipment will be provided by the Diving Center whereas the diving center will also provide a rescuer diver for the safety of the participants.

The field trip on 25/09 which includes a practical BUV session is proposed to take place at the marine area of Marathias (Southwest Coast of Laganas Bay) in cooperation with ‘’Big Blue MotorBoat Rentals’’. In specific, the company will provide for the implementation of the activity three small motored boats for the transportation of the participants for the field activity in the marine area of the NMPZ.

On 27/9/2019 (last day of the Summer School) a field excursion at the marine area of the NMPZ will take place. This activity is proposed to be provided by ‘’Laganas Boat Trips’’, a company that organizes sea excursions in the Bay of Laganas. The sea excursion will include a trip and stop for swimming at Keri Caves and Marathias, as well as a stop at Marathonisi island. Marathonisi is a nesting beach of the sea turtle *Caretta caretta*, so the participants will be able to be informed about the management measures for the protection of the sea turtle nesting beaches. Finally, before returning, they will have the opportunity for turtle-spotting and observation of the *Caretta caretta*, while they will be acquainted with the code of conduct for the proper observation of the sea turtles.

EVALUATION AND OUTPUTS OF THE TRAINING SESSION

1. Number of participants

After the completion of the training sessions (23 to 27 of September 2019) a series of indices that indicate the success of the event have been calculated. The first one can be considered the number of participants that attended the workshop.

Index	Value	Implementation Status
Number of total participants	20	

Breakdown of the number of participants is as follows: 13 MPA managers, 7 trainers and technicians. In more details the list of participants is as follows:

MPA	**Managers's name**
Lastovo (Croatia)	Bruna Đuković
Priroda	Sunčica Strišković
Thermaikos (Greece)	Lydia Alvanou
Torre del Cerrano (Italy)	Claudia Borgatti
Penisola del Sinis (Italy)	Stefania Coppa
RAPA Vlore (Albania)	Artion Seferi
Debeli rtic (Slovenia)	Neža Gregorič
Strunjan (Slovenia)	Luka Kastelic
Telascica (Croatia)	Milena Ramov
NMPZ (Greece)	Elpiniki Kalli
NMPZ (Greece)	Anna Thalassini Valli
NMPZ (Greece)	Elena Drosogianni
NMPZ (Greece)	Vasiliki Gkouva

Trainer Affiliation	Trainer's name
UNICE	Antonio Di Franco
UNICE	Antonio Calo
CONISMA	Gabriele Turco
UNICE	Martina Crimi
UNICE	Paolo Guidetti
NMPZ	Charalampos Dimitriadis
CONISMA	Carlo Cattano
CNR	Manfredi di Lorenzo
NMPZ	Drosos Koutsoubas

2. Skills learnt

The second index corresponds to the number of skills learnt by the participants.

Index	Value	Implementation Status
Skills learnt		
Designing and implementing UVC monitoring surveys in MPAs	1	
Designing and implementing BUVs monitoring surveys in MPAs	1	
Designing and implementing monitoring surveys on the fisheries landings in MPAs	1	
Designing and implementing monitoring surveys on fisheries socioeconomic factors in MPAs	1	
Analysis of ecological data	1	
Image and footage analysis with Image J software	1	
Implementation of FISHMPABLUE2 governance toolkit	1	
TOTAL	7	

3. Field surveys

The third index comprise the number of field surveys in the MPA of the NMPZ for the training of the participants

Index	Value	Implementation Status
Field Surveys		
UVC and snorkeling in the field	1	
BUVs in the MPA of NMPZ	1	
Sampling of landings from the MPA of the NMPZ	1	
Cruise to the MPA	1	
TOTAL	4	

4. Dissemination

The fourth index comprise the number of press releases and interviews in the regional television channels regarding the workshop (dissemination of the workshop/public awareness)

Index	Value	Implementation Status
Dissemination		
Press release to local newspapers including interviews of the trainers	2	
Interviews at regional television channel	1	
Interviews at local radio station	1	
TOTAL	4	

5. Produced informational material

The fifth index comprise the number of the educational material that was produced for the training of the participants

Index	Value	Implementation Status
Information material		
Presentations and documents	6	✓
TOTAL	6	

MATERIAL AND DOCUMENTS FROM THE WORKSHOP

Training of the participants in the premises of the National marine park of Zakynthos

Field trips and field work


Levante Fer

Launch, dinners and coffee breaks

Certificates to the trainees

Dissemination of the workshop to the media

The link of the program of the regional television channel that refers to the workshop is the following:

https://ioniantv.gr/zkynthos-therino-sxoleio-apo-to-mpz/

Press releases to the newspapers

ΕΘΝΙΚΟ ΘΑΛΑΣΣΙΟ ΠΑΡΚΟ ΖΑΚΥΝΘΟΥ

Θερινό σχολείο για τη διαχείριση της αλιείας στις θαλάσσιες προστατευόμενες περιοχές

"ΗΜΕΡΑ"
Πέμπτη 26/09/2019
Αρ.φυλ: 5998

Αυτόματη καταγραφή αλιευμάτων από κάμερες

Σε μια αξιέπαινη δράση συμμετέχει Εθνικό Θαλάσσιο Πάρκο Ζακύνθου (Ε.Θ.Π.Ζ.), το ονομαζόμενο Θερινό Σχολείο, το οποίο αφορά σε ένα επιστημονικό πρόγραμμα διαχείρισης της αλιείας σε προστατευόμενες περιοχές, με ευρωπαϊκή συνεργασία.

Πρόκειται για ένα ευρωπαϊκό πρόγραμμα που συμμετέχουν 11 προστατευόμενες θαλάσσιες περιοχές από όλη τη μεσόγειο και διάφορα ερευνητικά κέντρα και πανεπιστήμια της Ιταλίας, της Γαλλίας και το Πανεπιστήμιο Αιγαίου. ***«Με το θερινό σχολείο, που πραγματοποιείται υπό την εποπτεία του φορέα διαχείρισης του Εθνικού Θαλάσσιου Πάρκου σε συνεργασία με το πανεπιστήμιο Sophia Antipolis της Γαλλίας, το πανεπιστήμιο Αιγαίου και με το επιστημονικό προσωπικό του θαλασσίου πάρκου, συντελείται σημαντικό έργο για την προστασία του περιβάλλοντος»***, μας δήλωσε ο κ. Κουτσούμπας, Πρόεδρος του Ε.Θ.Π.Ζ.

Είναι μια πολύ σημαντική δραστηριότητα γιατί έχουν όλοι όσοι συμμετέχουν εκπαιδεύονται από το επιστημονικό προσωπικό στον τρόπο με το οποία θα συλλέγουν τα θαλάσσια πάρκα στις περιοχές τους επιστημονικά δεδομένα για την κατάσταση που βρίσκονται τα ιχθυαποθέματα. Ο κ. Κουτσούμπας δηλώνει: ***«Τα δεδομένα αυτά είναι χρήσιμα για να ληφθούν τα αναγκαία διαχειριστικά μέτρα, σε περίπτωση που χρειαστεί να γίνει κάποια προστασία των ιχθυαποθεμάτων. Και αυτό επειδή τα θαλάσσια πάρκα είναι περιοχές που δε γίνονται δραστηριότητες αλιείας, άρα αποτελούν καταφύγιο για τα ψάρια»***.

Σε επικοινωνία με τον κ. Δημητριάδη, θαλάσσιο βιολόγο, μας ανέφερε: ***«Γίνεται προσπάθεια, στο πλαίσιο του προγράμματος, να δούμε τρόπους και παράλληλα να αναπτύξουμε εργαλεία για το πώς μπορούμε να αυξήσουμε την αποτελεσματικότητα της διαχείρισης της αλιείας σε θαλάσσιες προστατευόμενες περιοχές»***.

Ο κ. Δημητριάδης μας ενημέρωσε ότι ήδη έχουν αναπτυχθεί εργαλεία για την παρακολούθηση των θαλάσσιων προστατευόμενων περιοχών σχετικά με την αλιεία. Συγκεκριμένα δηλώνει: ***«Στο πλαίσιο του προγράμματος έχουν αναπτυχθεί κάποια εργαλεία σε επίπεδο μεθοδολογίας, όσον αφορά στην επιστημονική παρακολούθηση των θαλάσσιων προστατευόμενων περιοχών σχετικά με την αλιεία και μέσω το θερινού σχολείου συγκεκριμένα αφορά στις δράσεις δημοσιότητας και μεταφοράς τεχνογνωσίας»***.

Αξίζει να σημειωθεί ότι στο νησί μας έχουν έρθει από διάφορες προστατευόμενες περιοχές της Σλοβενίας, της Κροατίας, της Ιταλίας, της Αλβανίας, της Γαλλίας κάποιοι διαχειριστές, όπως είναι εδώ το Εθνικό Θαλάσσιο Πάρκο, με αποτέλεσμα να γίνεται ***«μια εκπαίδευση σε μεθόδους εργασιών πεδίου για το πώς μπορούμε να παρακολουθούμε τα ιχθυαποθέματα με σύγχρονες τεχνολογίες, έτσι ώστε να αποκτήσουμε τη γνώση για να μπορέσουμε να διαχειριστούμε το κομμάτι της αλιείας σε θαλάσσιες προστατευόμενες περιοχές»***, δηλώνει χαρακτηριστικά ο κ. Δημητριάδης.

Το Εθνικό Θαλάσσιο Πάρκο Ζακύνθου συμμετέχει εδώ και 3 χρόνια στο συγκεκριμένο πρόγραμμα. Φέτος οι δράσεις του Θερινού Σχολείου πραγματοποιούνται στο νησί μας, αφού επιλέχθηκε σαν μια θαλάσσια προστατευόμενη περιοχή, με πολύ καθοριστικό ρόλο στην ανάπτυξη των μεθοδολογιών, καθόσον μάλιστα το Θαλάσσιο Πάρκο διαθέτει και σχετική τεχνογνωσία. Επιπλέον, η Ζάκυνθος είναι μια θαλάσσια περιοχή με πολλές προκλήσεις, κατά συνέπεια είναι πολύ σημαντικό να υπάρχουν μεθοδολογικά εργαλεία σε περιοχές όπου η διαχείριση είναι πολύ δύσκολη.

Πέμπτη 26/09/2019
2 ΕΡΜΗΣ Αρ.φυλ: 5997

Σε εξέλιξη το Θερινό Σχολείο για το πρόγραμμα FishMPABlue 2,

35 αλιείες ενημερώθηκαν για μεθόδους διατήρησης των ιχθυοαποθεμάτων

Της Μαριλένας Παπαδάτου

Διακεκριμένοι επιστήμονες στο αντικείμενο της θαλάσσιας βιολογίας και της περιβαλλοντικής έρευνας, αλλά και υπεύθυνοι θαλάσσιων πάρκων προστατευόμενων περιοχών ανά την Μεσόγειο βρίσκονται αυτές τις ημέρες στο νησί μας συμμετέχοντας σε μια από τις δράσεις στις οποίες συμμετέχει το Εθνικό Θαλάσσιο Πάρκο Ζακύνθου. Πρόκειται για το Θερινό Σχολείο που οργανώθηκε στο πλαίσιο του προγράμματος FishMPABlue 2, με τίτλο: "Αλιευτική Διακυβέρνηση στις Θαλάσσιες Προστατευόμενες Περιοχές (Θ.Π.Π.): Δυνατότητες για Μπλε Οικονομία 2".

Διακεκριμένοι επιστήμονες και υπεύθυνοι μεσογειακών θαλάσσιων Πάρκων στη Ζάκυνθο

Το πρόγραμμα χρηματοδοτείται από το Interegg και έχει σαν στόχο την Βιώσιμη Διαχείριση της μικρής κλίμακας παράκτιας αλιείας στην Προστατευόμενη Περιοχή του Ε.Θ.Π.Ζ. με την εφαρμογή καινοτόμων εργαλείων και όπως έγινε γνωστό από τους υπεύθυνους του προγράμματος, συμμετέχουν σε αυτό 35 αλιείες από το νησί μας.

Μιλώντας στον -Ε- ο Πρόεδρος του Πάρκου Καθηγητής Δρ. Κουτσούμπας ανέφερε πως στο συγκεκριμένο πρόγραμμα συμμετέχουν εκτός από την Ελλάδα και άλλες ευρωπαϊκές χώρες όπως η Ιταλία, η Κροατία, ή Αλβανία , η Σλοβενία, η Γαλλία , η Ισπανία και αφορά την προστασία των ιχθυοποικιλιών σε προστατευόμενες θαλάσσιες περιοχές. Η Ζάκυνθος και το ΕΘΠΖ ήταν ένα από τα πεδία εφαρμογής του προγράμματος, όπου σε συνεργασία με τους ντόπιους ψαράδες έγιναν μετρήσεις, εφαρμόστηκαν συγκεκριμένοι μέθοδοι αλιείας, πραγματοποιήθηκαν ενημερωτικά σεμινάρια και πολλές άλλες δράσεις για την ενημέρωση και των επαγγελματιών αλλά και του επιστημονικού προσωπικού του Πάρκου.

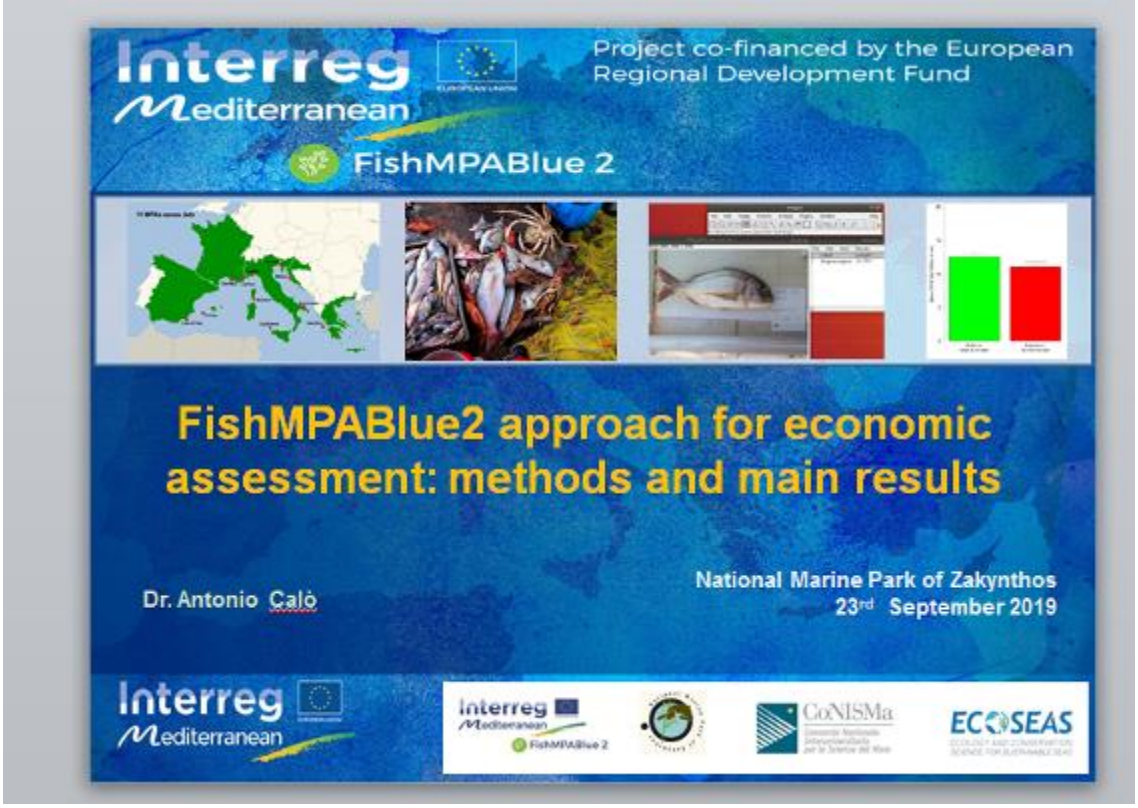
«Στόχος είναι να ενημερωθούν οι ψαράδες για την σημασία που έχει η προστασία των ιχθυοαποθεμάτων. Η Ζάκυνθος θεωρήθηκε ως πρότυπο εφαρμογής αυτού του προγράμματος και αυτός ήταν και ο λόγος που αποφασίστηκε να πραγματοποιηθεί εδώ το Θερινό Σχολείο» ανέφερε ο Πρόεδρος του ΕΘΠΖ σημειώνοντας πως το θερινό σχολείο πραγματοποιείται σε συνεργασία με το Πανεπιστήμιο της Νίκαιας και θα διαρκέσει μια εβδομάδα, περιλαμβάνοντας σεμινάρια, αλλά και δράσεις στη θαλάσσια περιοχή του Πάρκου.

Μεταξύ των συμμετεχόντων στο πρόγραμμα είναι και ο ιταλός Καθηγητής Paolo Guidetti, Καθηγητής στο Πανεπιστήμιο της Νίκαιας με αντικείμενο την θαλάσσια οικολογία, ο οποίος ανέφερε πως οι προστατευόμενες περιοχές, δεν πρέπει να θεωρούνται ως περιοχές όπου ισχύουν περιορισμοί, αλλά αντίθετα ως περιοχές που προσφέρουν σημαντικές δυνατότητες και προοπτικές, στη βάση της πάντα της προστασίας και της βιώσιμης ανάπτυξης. Σημείωσε πως η Μεσόγειος είναι μια μοναδική περιοχή έρευνας και ανάπτυξης, όπου υπάρχει ένα πλούσιο θαλάσσιο περιβάλλον, όπου διαβιούν πολλά προστατευόμενα είδη αλλά παράλληλα υπάρχει και μια έντονη ανθρώπινη δραστηριότητα, τουριστική, ακτοπλοϊκή, αλιευτική κ.α.

Κληθείς δε να σχολιάσει την πρόκληση για τις έρευνες υδρογονανθράκων που ξεκινούν στις θάλασσες του Ιονίου σημείωσε: «Αν θέλουμε να ακολουθήσουμε το δρόμο της βιώσιμης ανάπτυξης θα πρέπει να λάβουμε υπόψη πως θα πρέπει να έχουμε τον απόλυτο έλεγχο στους διαθέσιμους πόρους και όχι να τους εκμεταλλευτούμε ακόμη περισσότερο συντηρώντας ένα οικονομικό σύστημα που στηρίζεται στην υπερκατανάλωση πόρων και έχει αποδειχτεί αποτυχημένο. Αποτυχημένο και μακροπρόθεσμα αλλά και μεσοπρόθεσμα: Οι μεγάλες εταιρείες εκμεταλλεύονται τους πόρους ενός τόπου και ακολούθως αναζητούν καινούργιους. Η βιώσιμη ανάπτυξη επιβάλει να απολαμβάνουν τους πόρους μιας περιοχής οι κάτοικοι και μοιραία, θα τους απολαμβάνουν και οι επισκέπτες» σημείωσε.

ΕΦΗΜΕΡΙΔΑ ΕΡΜΗΣ
ΙΔΙΟΚΤΗΣΙΑ: ΕΡΜΗΣ Α.Ε.
ΕΚΔΟΤΗΣ: Ιωάννα Πέττα - Συνετού
ΔΙΕΥΘΥΝΤΗΣ: Αγγελική Ξενόφου
ΥΠΕΥΘΥΝΟΣ ΤΥΠΟΓΡΑΦΕΙΟΥ: Δημήτρης Πέττας
ΤΙΜΗ ΦΥΛΛΟΥ 1 €
ΕΤΗΣΙΑ ΣΥΝΔΡΟΜΗ 120 ΕΥΡΩ
ΣΥΝΔΡΟΜΗ ΤΡΑΠΕΖΩΝ - ΕΠΙΧΕΙΡΗΣΕΩΝ 200 €

Presented educational material


Interreg
Mediterranean
Project co-financed by the European Regional Development Fund
FishMPABlue 2
FishMPABlue2 approach for economic assessment: methods and main results
Dr. Antonio Calò
National Marine Park of Zakynthos
23rd September 2019
Interreg
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PRESENCE SHEETS

Summer school
"Design and implement monitoring activities to assess Marine Protected Areas ecological and fisheries effectiveness: improving MPA's manager skills"

23-27 September 2019, Zakynthos
National Marine Park of Zakynthos

23th September 2019

A/A	Name/Surname	Organization	Signature
1	Arlion Seferi	RAPA Vlorë	
2	CLAUDIA BOEGATTI	AMP TORRE DEL CERRANO	
3	SUNČICA STRIŠKOVIĆ	PUBLIC INSTITUTION PRIRODA	
4	BRUNA ALUKOVIĆ	PUBLIC INSTITUTION NP LASTOVO ISLANDS	
5	MILENA RADOV	PUBLIC ISTITUTION NP TELAŠČICA	
6	NEŽA GREGORIČ	MPA DEBELI RTIČ (SLO)	
7	LUKA KASTELIC	MPA STRUNJAN (SLO	
8	STEFANIA COPPA	CNR / IAS MPA	
9	ANTONIO CALÒ	UNICE / UNIPA	
10	ANTONIO DI FRANCO	SZN / UNICE	
11	GABRIELE TURCO	CONISMA	
12	MARTINA CRIMI	UNICE	
13	PAOLO GUIDETTI	UNIV. NICE	
14	Chavdarova Dimitrovska	UMPZ	
15	CARLO CATTANO	CONISMA	
16	MANFREDI DI LORENZO	IRBIM CNR	
17	DROSOS KOUTSOUBAS	NMPZ - Univ Aegean	
18	Elpiniki Kalli	NMPZ	
19	Anna-Thalassini Valli	NMPZ	
20	Elena Drosogianni	NMPZ	
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Summer school

"Design and implement monitoring activities to assess Marine Protected Areas ecological and fisheries effectiveness: improving MPA's manager skills"

23-27 September 2019, Zakynthos
National Marine Park of Zakynthos

24th September 2019

A/A	Name/Surname	Organization	Signature
1	CARLO CATTANO	CONISMA	
2	GABRIELE TUNCO	CONISMA	
3	CLAUDIA BORGATTI	AMP TORRE DEL CERRANO	
4	Arlion Seferi	RAPA VLORE	
5	SUNČICA STRIŠKOVIĆ	P.I. PRIRODA CROATIA	
6	BRUNA ALEGOVIĆ	PINP LASTOVO ISLANDS	
7	HILENA RAMOV	NATURE PARK TELAŠČICA	
8	LUKA KASTELIC	NATURE PARK SIPUNSAN	
9	NEŽA GREGORIČ	MPA DEBELI RTIČ	
10	STEFANIA GOPPA	CNR/ SIMIS MPA	
11	LYDIA ALVANOU	THERMAIKOS GULF PAMA	
12	PAOLO GUIDETTI	UNIV. NICE	
13	ANTONIO DI FRANCO	SZN /UNICE	
14	MANFREDI DI LORENZO	IRBIM-CNR	
15	MARTINA CRIMI	UNICE	
16	ANTONIO CALÒ	UNIPA/UNICE	
17	(Vasilopoulos) Dimitriadis	NMPZ	
18	Elpiniki Kalli	NMPZ	
19	Anna-Thalassini Valli	NMPZ	
20	Μακρόπουλος Κωνστ	NMPZ	
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Summer school
"Design and implement monitoring activities to assess Marine Protected Areas ecological and fisheries effectiveness: improving MPA's manager skills"

23-27 September 2019, Zakynthos
National Marine Park of Zakynthos

25th September 2019

A/A	Name/Surname	Organization	Signature
1	CARLO CATTANO	CONISMA	
2	GABRIELE TUNCO	CONISMA	
3	CLAUDIA BORGATTI	AMP TORRE DEL CERRANO	
4	Artion Seferi	RAPA VLORE	
5	SUNČICA STRIŠKOVIĆ	PUBLIC INSTITUTION PRIRODA	
6	BRUNA BUKOVIC	PINP LASTOVO ISLANDS	
7	MILENA RAMOV	NATURE PARK TELAŠČICA	
8	LUKA KASIELC	NATURE PARK STRUNJAN	
9	NEŽA GREGORIČ	LANDSCAPE PARK DEBELI RTIČ	
10	STEFANIA COPPA	CNR / SINIS MPA	
11	LYDIA ALVANOU	THERMAIKOS GULF PAMA	
12	PAOLO GUIDETTI	UNIV. NICE	
13	MANFREDI DI LORENZO	IRBIM - CNR	
14	ANTONIA DI FRANCO	SZN	
15	MARTINA CRIMI	UNICE	
16	ANTONIO CALÒ	UNIPA/UNICE	
17	Charalampos Dimitriadis	NMP2	
18	Elpiniki Kalli	NMP2	
19	Anna-Thalassini Valli	NMP2	
20	Elena Drosogianni	NMP2	
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22			

Interreg Mediterranean FishMPABlue 2

Summer school

"Design and implement monitoring activities to assess Marine Protected Areas ecological and fisheries effectiveness: improving MPA's manager skills"

CoNISMa Consorzio Nazionale Interuniversitario per le Scienze del Mare

ECOSEAS

23-27 September 2019, Zakynthos
National Marine Park of Zakynthos

26th September 2019

A/A	Name/Surname	Organization	Signature
1	CLAUDIA BORGATTI	AMP TORRE DEL CERRANO	
2	Artjon Seferi	RAPA VLORE	
3	SUNČICA STRIŠKOVIĆ	PUPRIRODA CROATIA	
4	BRUNA DUKOVIĆ	PINP LASTOVO ISLANDS	
5	MILENA RAMOV	NATURE PARK RELAŠCICA	
6	LUKA KASTELIC	NATURE PARK STRUNJAN	
7	NEŽA GREGORIČ	NATURE PARK DEBELI RTIČ	
8	STEFANIA COPPA	CNR / SINIS MPA	
9	LYDIA ALVANOU	THERMAIKOS GULF PAMA	
10	ANTONIO DI FRANCO	SEN / UNICE	
11	GABRIELE TURCO	CONISMA	
12	ANTONIO CALÒ	UNICE/UNIPA	
13	CARLO CATTANO	CONISMA	
14	MANFREDI DI LORENZO	IRBIM - CNR	
15	Chdvalamog Dimitriadis	NMPZ	
16	Elpiniki Kalli	NMPZ	
17	Anna-Thalassini Kalli	NMPZ	
18	Elena Drosoyianni	NMPZ	
19	Vasiliki Akrova	NMPZ	
20	Μιχαηδουλας Κυπρος	NMPZ	
21			
22			

Summer school

"Design and implement monitoring activities to assess Marine Protected Areas ecological and fisheries effectiveness: improving MPA's manager skills"

23-27 September 2019, Zakynthos
National Marine Park of Zakynthos

27th September 2019

A/A	Name/Surname	Organization	Signature
1	BRUNA DUKOVIĆ	PI NP LASTOVO ISLANDS	
2	MILENA RAMOV	NATURE PARK DELAŠĆICA	
3	CLAUDIA BORGATTI	AMP TORRE DEL CERRANO	
4	LUKA KASTELIC	NATURE PARK SIRMIAN	
5	NEŽA GREGORIČ	NATURE PARK DEBELI RTIČ	
6	LYDIA ALVANOU	THERMAIKOS GULF PAMA	
7	STEFANIA COPPA	CNR/SINIS MPA	
8	Arlion Seferi	RAPA VLORE	
9	SUNČICA STRISOVIĆ	P.I. PRIRODA	
10	ANTONIO DI FRANCO	SZN	
11	CARLO CATTANO	CONISMA	
12	GABRIELE TURCO	CONISMA	
13	MANFREDI DI LORENZO	IRBIM - CNR	
14	ANTONIO CALÒ	UMCE - UNIPA	
15	Andreadakis Dimitriadis	NMPZ	
16	Elpiniki Kalli	NMPZ	
17	Anna-Thedossini Velli	NMPZ	
18	Eleni Drosogianni	NMPZ	
19	Vasiliki Gkanou	NMPZ	
20	Moschopoulos Kostas	NMPZ	
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22			

FINANCIAL REPORTING

22 september		
Type	Unit	Estimated cost
Accomodation	9 single rooms x 30 € + 4 douple rooms x 40€ + 0.50€ X17 (overnight tax)	438,5
Dinner	20personsX20€	0
Lunch Break	20personsX15€	0
Total per day		438,5

23 september		
Type	Unit	Estimated cost
Coffee Break	20personsX10€	0
Lunch Break	20personsX15€	0
Dinner	20personsX20€	0
Premises/equipment	Full equiped hall	1000
Accomodation	9 single rooms x 30 € + 4 douple rooms x 40€ + 0.50€ X17 (overnight tax)	438,5
Small office eqipment		100
Lecturers	2X200€	400
Secretary	1X100	100
Cummunication		50
		2088,5

24 september		
Type	Unit	Estimated cost
Snack at the field	20personsX10€	0
Diving equipment	15 tanksX20€ + diving equipment for 20 persons X 40 euros + 10 slatesX50 + 3 transect lines *50 euros each + ropes (50 euros)	1800
Rescue diver	1 diver X 150€	150
Boat rental	2 boatsX150€	300
Transportation	20 persons X 30€	600
Accomodation	9 single rooms x 30 € + 4 douple rooms x 40€ + 0.50€ X17 (overnight tax)	438,5
Small office eqipment		100
Lecturers	2X 200€	400
Secretary	1X100	100
Cummunication		50
		3938,5

25 september		
Type	Unit	Estimated cost
Transportation	20 persons X30€	600
Boat rental	2 boats X200€	400
Lunch Break	20personsX25€	0
Premises/equipment	Full equiped hall	1000
Diner	20personsX30€	0
Accomodation	9 single rooms x 30 € + 4 douple rooms x 40€ + 0.50€ X17 (overnight tax)	438,5
Small office eqipment		100
Lecturers	2X 200€	400
Secretary	1X100	100
Cummunication		50
		3088,5

26 september		
Type	Unit	Estimated cost
Coffee Break	20personsX10€	0
Premises/equipment	Full equiped hall	1000
Coffee Break	20personsX10€	0
Fishing boat rental and catches	1 boat X 1200	1200
Equipment for SSF landing monitoring	various equipment	400
Lunch Break	20personsX15€	0
Diner	20personsX20€	0
Accomodation	7 single rooms x 30 € + 4 douple rooms x 40€ + 0.50€ X17 (overnight tax)	378,5
Small office eqipment		100
Lecturers	2 X 200€	400
Secretary	1X100	100
Cummunication		50
		3628,5

27 september		
Type	Unit	Estimated cost
Premises/equipment	Full equiped hall	1000
Coffee Break	20personsX10€	0
Field excursion	20personsX40€	800
Transportation	20 persons X 40€	800
Accomodation	7 single rooms x 30 € + 4 douple rooms x 40€ + 0.50€ X17 (overnight tax)	378,5
Diner	20personsX20€	0
Lunch Break	20personsX20€	0
Small office eqipment		100
Lecturers	2X 200€	400
Secretary	1X100	100
Cummunication		50
		3628,5

Reporing cost	8189

Per cost category	
Accomodation	2511
Premises/equipment	4000
Small office eqipment	500
Lecturers	2000
Secretary	500
Cummunication	250
Reporting cost	8189
Diving equipment	1800
Rescue diver	150
Boat rental	700
Transportation	2000
Fishing boat rental and catches	1200
Equipment for SSF landing monitoring	400
Field excursion	800
Total	**25000**

Signature

DROSOS KOUTSOUMPAS

Name of the Signatory

Official stamp of the Signatory Structure