

REPORT OF THE 2022 MEDITS COORDINATION MEETING

(Ljubljana, Slovenia, 24-25 October 2022)

1. Opening, adoption of agenda and meeting arrangements

The Meeting was held at the City Hotel in Ljubljana, Slovenia, from 24-25 October 2022. Bojan Marčeta from the *Fisheries Research Institute of Slovenia* opened the meeting welcoming the participants (“the Group”) and provided information on practicalities. George Tserpes (meeting Chairperson) on behalf of the Group, thanked the *Fisheries Research Institute of Slovenia* for hosting the meeting and highlighted the importance of the work to be developed by the Group during the meeting, aiming to facilitate collaboration among MEDITS scientists for the provision of updated information on the abundance trends of demersal stocks in the Mediterranean, as well as on the state of the marine ecosystem in terms of species composition and distribution patterns. George Tserpes proceeded to review the Agenda, which was adopted following few amendments (Appendix 1). The List of Participants is included in Appendix 2. The submitted Documents and Presentations are attached in Appendixes 3 and 4 respectively.

2. Feedback from 2021 activities

2.1 Previous coordination meeting

The Group reviewed and adopted the summary conclusions of the brief 2021 coordination meeting, which was held online due to the travel restrictions imposed due to the COVID pandemic.

2.2 Relevant meetings and workshops

Maria Teresa Spedicato provided information on the outcomes of the WKFISHDISH2 ICES workshop aiming to review models able to derive spatial distribution of fish, shrimps and cephalopods from survey data. During the workshop a series of different modeling approaches were reviewed and a relevant best practice guidance has been developed. The presentation also showed the links among the outputs of this ICES meeting and the relevant ongoing work in the SEAWISE H2020 EU project (<https://seawiseproject.org/>), whose overall aim is to provide a fully operational approach for European Ecosystem Based Fisheries Management based on persistent networks and co-designed innovation (presentation in the Annex 4). A specific SEAWISE Case Study is focusing on the Mediterranean,

2.3 Review of the 2021 MEDITS surveys

Participants presented briefly the activities accomplished during the 2021 MEDITS surveys in each country/GSA with special focus on problems encountered, extraordinary findings and future planning. The survey was implemented with some delays in certain GSAs due to administrative reasons. The main points by GSA are summarized below, while further details and presentations are included in Appendixes 3 and 4.

Enric Massutí presented information about the surveys realized in **GSAs 1, 2, 5 and 6** by Spanish scientists.

During 2021, the Spanish MEDITS survey was carried out from April 27th to June 23th (58 days) on board the R/V *Miguel Oliver*. Four geographic sub-areas (GSAs) were covered: 1 (Northern Alboran), 2 (Alboran Island), 6 (Northern Spain) and the eastern part (Mallorca-Menorca) of GSA 5 (Balearic Islands). A second MEDITS survey was carried out from 18-25 August (8 days) to cover the western part (Ibiza-Formentera) of GSA 5. A total of 268 hauls were performed, by several teams of IEO: 60 in GSA 1, 8 in GSA 2, 106 in GSA 6, 60 in GSA 5E and 34 in GSA 5W, following MEDITS protocol. The MARPORT system was used to monitor the geometry and behaviour of the sampling gear in all hauls. A CTD SeaBird 37 was attached to the net in order to collect temperature, salinity and depth during all sampling stations. A total of 670 species or taxa (218 fishes, 106 crustaceans, 102 molluscs, 59 echinoderms, 130 other invertebrates and 55 algae) were identified, counted and weighted. The total catch was 1761310 individuals and 33229 kg. The number of individuals measured to obtain length distributions was 216462. A total of 42938 biological samplings were carried out, whereas the otoliths from 2844 individuals of *Merluccius merluccius*, *Mullus barbatus*, *M. surmuletus*, *Lophius budegassa* and *L. piscatorius* were removed and stored. In 2022, the Spanish MEDITS survey has been developed from May 5th to July 6th (GSAs 1, 2, 6 and 5E) and from 12-20 August (GSA 5W), on board the R/V *Miguel Oliver*.

Gregoire Certain had forwarded information about the surveys realized in **GSAs 7 and 8**. The information was summarized by the meeting chairperson and presented to the Group. The surveys were conducted from the 22nd May until the 26th of June 2021 and 89 hauls were successfully accomplished in GSA 8–Eastern Corsica and GSA 7-Gulf of Lions. The opening of the net was measured using the MAREPORT system, on all hauls and the bottom temperature and salinity were measured using an Oddistar CTD sensor. It was noted that the towing speed has notably increased in the 2021 survey, probably resulting from a change in the ship's captain. As a result, wing opening has varied more than usual. Vertical opening, albeit a bit low, is still in the range of observed historical values - but still lower than the recommended values.

Claudia Musumeci presented the MEDITS results for **GSA09**. During 2021, the MEDITS survey was carried out in the Ligurian and North Central Tyrrhenian Sea from August 23rd to September 20th on board the fishing vessel Pegaso SB. This delay was due to administrative issues. Before the MEDITS survey started, checking of gears were conducted according to the protocol. All the 120 hauls were carried out successfully. Sensors for the measurement of the vertical and horizontal net opening and DST Centi probe to detect the bottom temperature were used during the majority of the hauls and the results were presented. Existence of marine litter on the sea bottom was monitored and categorized according to the MEDITS Protocol. A total of 267 species (129 bony fishes, 16 elasmobranchs, 42 crustaceans, 26 cephalopods and 54 other invertebrates and algae) were identified, counted and weighted. The size was collected on 38093 individuals belonging to the target species: 23312 bony fish, 2077 elasmobranchs, 4763 cephalopods and 7941 crustaceans. A total of 1204 samples were collected for age reading: 1085 otoliths from bony fishes

(demersal and small pelagic species), and 119 vertebrae from elasmobranchs (*Galeus melastomus*). Historical density and biomass data series of the most important species were presented. No significant trends were observed for *Mullus surmuletus*, *Aristomorpha foliacea*, *Nephrops norvegicus* and *Loligo vulgaris*. Positive trends were noted for *G. melastomus*, *Scyliorhynchus canicula*, *Mullus barbatus*, *Illex coindetii* and *Parapenaeus longirostris*. A significant negative trend was observed for *Merluccius merluccius* and *Aristeus antennatus*. Concerning the mean size of the specimens, during the MEDITS time series, a significant negative trend was detected in the case of *N. norvegicus* and *P. longirostris*, while a positive trend was observed for *S. canicula*. Unfortunately, also in 2022 the implementation of the DCF in Italy suffered delays due to administrative issues. Due to this, it was not possible to carry out the MEDITS survey in all the Italian GSAs for this year.

Paola Rinelli presented information about the survey in **GSA10**. In GSA10 the 2021 survey was carried out from the 23rd of September to the 9th of October. The delay in respect to the timeframe of the MEDITS protocol was caused by the timing required by Italian Ministry administration for the extension of Data Collection Program for 2021. The vessel used was “Pegaso” utilized since 2018. The same trawler boat was also used in the neighboring areas (GSA9 and GSA16). The number of valid hauls performed was 70 as planned, in the same location of previous years. Depth (0.1 m) and sea water temperature (0.1 T °C) values were recorded by a Star-oddi system in each haul. Otherwise SIMRAD equipment, to control the trawl geometry (vertical and horizontal openings, contact with the bottom) was not used because due to instrument malfunction. All data were collected in accordance with the common protocol, established in the framework of the MEDITS coordination (Instruction Manual V.9, 2017), and according to the technical specifications in the approved project. The collected marine litters were classified according to the MEDITS Protocol. A total of 213 species belonging in 12 faunistic categories were identified: 15 species of Elasmobranchs, 84 species of Osteichthyes, 29 species of Crustaceans (Decapoda and Stomatopoda), 17 species of Cephalopods, 10 species of Mollusca Bivalvia, 12 species of Mollusca Gastropoda, 4 species of Tunicata, 1 species of Brachiopoda, 14 species of Cnidaria, 21 species of Echinoderms, 5 species of Opisthobranchia, 1 species of Porifera. Length measurements were taken from 30079 individuals as well as for sex and maturity. The number of samples of hard tissues (otoliths) collected for ageing, by target species, was: *M. merluccius* 427, *M. barbatus* 400 and *M. surmuletus* 49. No difficulties were encountered in the application of the common protocol. Data storage and analysis was performed using the “Fishtrawl” software, specifically created for the management of data from experimental surveys. Further checks were carried out by applying the Rome routine. The 2022 survey has not been carried out due to the delay in the completion of the award procedures by the Italian Ministry of Agricultural, Food and Forestry Policies.

Maria Cristina Follesa presented information about the survey in **GSA 11**. The survey was carried out between the 23rd August and the 9th September (17 working days), with the vessel Gisella, the same used

since 2004. All the 101 hauls were performed, with an average of 5.9 hauls by day. The Simrad sensors were used to record the horizontal and vertical openings, as well as the bottom temperature of the haul. They worked correctly for 80% and 89% of the hauls, to detect respectively net openings (vertical and horizontal) and temperature. Missing data on horizontal and vertical net openings were estimated through a model using depth of the haul and warp length. All the data (catches in number and weight, length data, maturity stages for target species, otoliths for hake, red mullet and striped mullet) were collected following the MEDITS protocol. Litter and benthos data were recorded as well. Hake stomachs were gathered to analyze the feeding habits of the species. Litter was found in 48 out of 101 valid hauls, and the plastic category resulted the most abundant item found in Sardinian waters (42% of the hauls). Concerning the biomass and density temporal trends (1994- 2021), significant decreasing trends, both in biomass and density, have been registered for *Galeus melastomus*, *Eledone cirrhosa* and *Mullus surmuletus*, only in biomass for *O. vulgaris* and only in density for *R. clavata*. Increasing trends in abundance have been recorded for *Mullus barbatus* and *Loligo vulgaris*. The abundance trends of the other target species appear stable. The MEDITS survey was not carried out in 2022 in GSA11 due to administrative issues.

Jurgen Mifsud presented information about the survey in **GSA 15**. The survey was coordinated and performed by the Fisheries Research Unit (Department of Fisheries and Aquaculture, Malta). It took place from the 23rd of August till the 4th of September 2021 onboard the commercial trawling vessel DEGRE (MFA0081), and 45 valid hauls were performed. Bottom water temperature was measured using Star-Oddi centi-TD sensor in all valid hauls. Moreover, a Star-Oddi DST CTD sensor was fixed to one of the trawl doors to record the sound velocity, temperature and salinity, and a Star-Oddi Starmon Tilt (3-D) sensor was fixed to the other trawl door to record the dynamics of the trawl doors during all valid hauls. Marine litter was collected from all the performed hauls, and the respective data was recorded accordingly and subsequently uploaded on the EMODnet platform. The highest percentage occurrence of marine litter was plastic, followed by metal and glass. More than 5800 individuals were sampled and hard tissues (otoliths) were collected for ageing target species: 502 for *Merluccius merluccius*, 59 for *Mullus barbatus*, and 459 for *Mullus surmuletus*.

Germana Garofalo presented the results of the survey MEDITS 2021 conducted in **GSA 16** (south of Sicily), which covers the northern part of the Strait of Sicily (scientific coordinators G. Garofalo & G. Bono). Due to administrative delays in granting funding and issuing authorizations, the survey was conducted in autumn, between October 12th and November 11th. This deviation from the recommended period for the MEDITS survey (May-July) represents an element of potential criticality that must be adequately assessed in the analysis of historical series. The survey was carried using the commercial trawler *Pegaso* with scientific personnel on board. A total of 120 valid hauls were performed as planned. Star Oddi CTD probes were used to record temperature/depth profiles in each haul. It was not possible to record the dynamic performance

parameters of the net because one of the SIMRAD sensors was lost a few days after the start of the survey. The catch by haul was sorted and if necessary subsampled on board. All the catch kept aside was processed in the laboratory. Marine litter was separated from the catch, sorted, counted and photographed. Plastic resulted the most abundant category (81%) in terms of number of items while the 'Other' category was predominant (59%) in terms of weight due to the recurring presence of anchorage stones abandoned on the bottom after fishing with FADs. A total of 293 taxa were collected, of which 122 bony fish, 24 elasmobranchs, 43 crustaceans, 24 cephalopods and 80 other commercial and non-commercial animal species and vegetals. Otoliths were processed for 485 specimens of *Merluccius merluccius*, 527 of *Mullus barbatus* and 239 of *Mullus surmuletus*. Historical biomass trends (1994-2021) were presented for the faunistic categories and for the most important species. Significant positive trends were observed for *Mullus barbatus* and *Raja clavata*, while the trend was negative for *Aristomorpha foliacea*. Within the framework of the Italian National Plan for Data Collection, a pilot study focused on the diet of *Merluccius merluccius*. In particular, 161 stomachs were sampled. A total of 44 preys were identified, most of which were crustaceans (21 species; IRI=51.58%) followed by Osteichthyes (15 species; IRI=28.26%). Due to delays in the implementation of the Italian national DCF program, the MEDITS survey was not carried out in 2022.

Igor Isailovic and Bojan Marceta presented information about the survey performed in **GSA17**. The survey in GSA 17 was conducted jointly by the Laboratory of Marine Biology and Fisheries in Fano (Italy), the Institute of Oceanography and Fisheries of Split (IOF, Croatia), and the Fishery Research Institute of Slovenia. The survey in the eastern part of GSA 17 took place from June 28 to July 23, 2021, aboard the research vessel BIOS DVA and included 80 stations in Croatian territorial waters and the eastern half of international waters (Croatian exclusive economic zone). The survey in the western part of GSA 17 took place from June 21 to September 23, 2021, aboard the research vessel M/V ANDREA and included 120 stations in Italian territorial waters and the western half of extraterritorial waters. Two stations in Slovenian territorial waters were sampled by MV ANDREA on September 21, 2021. Bottom water temperature was measured with Star-Oddi temperature sensors in a total of 200 hauls. Marine litter was also monitored during the survey and biological sampling was conducted using the MEDITS protocol ver 9, (2017) , with minor difficulties in applying the protocol. The 2022 MEDITS survey in the eastern part (Slovenia and Croatia) was conducted from June 21 to July 22, 2022. On the western side (Italy), it was not conducted in 2022 due to bureaucratic issues in Italy.

Pierluigi Carbonara presented the results of the MEDITS survey in the **GSA18**. The survey was carried out from 16.08.2021 to 31.08.2021. The vessel utilized was Mizar (MIZ). The number of sampled hauls was 70. Simrad was used in 51 hauls and DST centi-TD in 70 hauls; surface, bottom temperature and depth were recorded in all hauls. Litter was monitored by each haul following the common protocol. Species classified

by taxa were 322 belonging to 17 faunistic categories: 12 species of Elasmobranchs, 125 species of Osteichthyes, 58 species of Crustaceans, 32 species of Cephalopods, 7 species of Mollusca Bivalvia, 24 species of Echinoderms, 10 species of Mollusca Gastropoda, 9 species of Opisthobranchia, 14 species of Tunicata, 1 species of Brachiopoda, 1 species of Bryozoa, 13 species of Cnidaria, 3 species of Polychaeta, 1 species of Sipunculida, 5 species of Porifera, 6 species of Vegetalia, 1 species of Reptilia. The total number of classified individuals of the MEDITS reference list was 151682 individuals. The total number of sampled individuals for length distributions was 41356 individuals. The total number of sampled individuals for sex and maturity was, respectively, 6565 and 6552. The number of collected samples of hard tissues for ageing target species were: *M. merluccius* 449 otoliths, *M. barbatus* 540 otoliths, *M. surmuletus* 11 otoliths. No difficulties were encountered in the application of the common protocol. Significant increasing trends of occurrence, abundance and biomass have been estimated for several target species, excluding *N. norvegicus*.

Porzia Maiorano presented information about the survey in **GSA 19**. In 2021, the 28th MEDITS survey in the North-western Ionian Sea (GSA 19) has been slightly delayed in time in the full summer season, from August 31st to September 14th 2021 (15 days), on board the vessel MIZAR (ML/1097). A total of 70 hauls has been performed by the team of the Department of Bioscience, Biotechnology and Environment of University of Bari, following the MEDITS protocol. Some technical problems didn't allow temperature monitoring, but no other problems occurred during the survey. The SIMRAD system was adopted in 41 hauls (59%) for the trawl geometry monitoring. A total of 206 species of the main faunistic categories were identified, counted and weighed: 28 Cephalopods, 44 Crustaceans (Decapoda and Stomatopoda), 14 Elasmobranchs, and 120 Bony fish. Moreover, a total of 77 species were identified in the other faunistic categories. Four new species were recorded in the GSA 19: the crustaceans *Penaeus aztecus* and *Erugosquilla massavensis* and the bony fish *Dentex maroccanus* and *Pomadasys incisus*. The total number of sampled individuals for length distributions (G1+G2) and sex/maturity (G1) were 83797 and 20678 respectively. The samples of hard tissues collected (and read) for age estimations from the target species were as follows: 238 for *M. merluccius*, 316 (314 read) for *M. barbatus* and 66 for *M. surmuletus*. The samples were collected by sex and size according to the protocol. No particular difficulties were encountered in the application of the protocol. The revision of historical trends (1994-2021) indicated a significant catch increase of all faunistic categories, apart from Crustaceans. Concerning the main commercial species, significant increasing trends in density and biomass were observed for *Aristaeomorpha foliacea* and *Parapenaeus longirostris* in crustaceans, for *Illex coindetii* among cephalopods and for *Mullus barbatus* in bony fish while significant decreasing abundances were detected in *Nephrops norvegicus* and *Aristeus antennatus*. The marine litter has been recorded and weighed in each haul according to the MEDITS protocol. The presence of litter was detected in 64 stations (91,4%), with plastic as the most occurring and abundant category (68,9% in number). The 29th MEDITS survey in the North-western Ionian

Sea is not planned in 2022.

Panagiota Peristeraki presented information for GSAs 20, 22 and 23. Three scientific teams were involved in those surveys, two from HCMR and one from FRI. FRI team was responsible for the survey in the N. Aegean Sea (part of GSA 22). The survey was realized from 14/6/2021 to 23/7/2021, with the hired commercial vessel "MEGALOHARI". Sixty one stations were sampled during this survey. HCMR teams were responsible for the surveys in the E. Ionian Sea (GSA 20), S. Aegean Sea (part of GSA 22) and Cretan Sea (GSA 23), that were realized from 23/6/2021 to 30/7/2021, with the hired commercial vessels "TAKIS-MIMIS" and "NAUTILOS". In these areas the survey covered 40, 63 and 22 stations, respectively. All surveys were accomplished without any particular problems and data were collected in accordance with the foreseen design and procedures (MeditS_Handbook_2017). The number of recorded species were: 212 in N. Aegean, 277 in S. Aegean, 247 in the Ionian and 145 in Crete. The maturity stage was evaluated for a total of about 23000 specimens from 61 species. Also, age readings from otoliths were obtained from more than 3000 specimens belonging to three species: *M. merluccius*, *M. barbatus* and *M. surmuletus*. In 2022, the Greek Surveys were accomplished from June to October of 2022. Apart from bad weather conditions in the Aegean and Cretan Seas the main issue was an engine failure of the vessel MEGALOHARI, which resulted in the interruption of the survey in the N. Aegean and its continuation in October.

Ioannis Thasitis, from DFRM presented information for **GSA 25**. The 16th MEDITS survey in Cyprus island was slightly off schedule due to COVID19 pandemic and it was carried out from 31 of July to 12 of August. The sampling plan was executed according to the plan on board the vessel "Megalochari" which is used every year since 2009. Prior to the survey the sampling gear GOC73 was inspected and measured to verify that it meets the specifications. In total 26 hauls were carried out following the MEDITS protocol with a small displacement of station No5 which was explained and documented to the group. The net was equipped with the trawl geometry system Scanmar ITI in order to have real time view of the gear formation while hauling. The biological sampling covered all Osteichthyes, Chondrichthyes, Crustaceans and Cephalopods specimens that retrieved by the net including macrobenthos organisms. Marine litter protocol was applied successfully as it has been applied continuously since 2013. In each of the stations an opportunistic ichthyoplankton collection took place using bongo nets. In total numbers survey gave the opportunity to sample: 106 species of *Osteichthyes*, 28 species of Crustaceans, 17 species of Cephalopods and 2 reptile species. Additionally, 78 taxa from 16 macrobentos classes were collected. As regards G1 group 18 species were recorded. Otolith were collected from 3 species: *Mullus barbatus* (479), *Mullus surmuletus* (38) and *Merluccius merluccius* (77). A notable result is the increasing presence of Non Indigenous Species (NIS) resulting in 14 fish and 1 crustacean. Species with the highest biomass indices (kg/km²) were: *Chlorophthalmus agassizii* (103.71 kg/km²), *Squalus blainville* (49.34 kg/km²), *Codium bursa* (37.15 kg/km²), *Caretta caretta* (27.51 kg/km²), *Heptranchias perlo* (26.70 kg/km²), *Argentina sphyraena*

(20.85 kg/km²), *Chelonia mydas* (20.84 kg/km²), *Sarcotragus spinosulus* (19.48 kg/km²) and *Merluccius merluccius* (16.93 kg/km²). The species with the highest abundance (N/km²) were: *Spicara smaris* (11,058.8 N/km²), *Chlorophthalmus agassizii* (4,573.46 N/km²), *Argentina sphyraena* (2,034.66 N/km²), *Plesionika martia* (1,551.31 N/km²), *Plesionika edwardsii* (1,474.02 N/km²), *Hoplostethus mediterraneus* (754.81 N/km²), *Macroramphosus scolopax* (532.7 N/km²), *Etmopterus spinax* (405.44 N/km²), *Hymenocephalus italicus* (389.62 N/km²). A pilot addition of 3 extra hauls was also presented to the group for the next survey cycle with the sole aim to sample the recognised deep water red shrimp fishing ground in GSA25. The 17th MEDITS survey of year 2022 in GSA25 already commissioned in June by the time of presentation and the analysis is pending.

3. Other relevant activities and on going projects

Daniela Massi, Coordinator of the MEDITS Benthos WG established following decisions of the 2019 steering committee meeting, presented the “Field Identification Guide of Benthos. A useful tool for the classification of VME species during the MEDITS surveys”. The Field Guide answers to a main request raised during the Workshop on “Standardization of MEDITS Benthos data collection” (Mazara del Vallo, 11-12 February 2020) by the MEDITS Benthos WG, i.e. to create a restricted list of megabenthos target species, including indicators of Vulnerable Marine Ecosystems (VME). The Field Guide concerns 22 target taxa of megabenthos selected on the basis of the following criteria: i) to be present in the TM MEDITS List 2019, ii) to be listed as species indicator of VME according to the GFCM (FAO, 2017; 2019) and iii) to be easily identifiable as a species level, or higher taxon. The list includes taxa typical of soft and detritic trawlable bottoms formed by 15 cnidarians, 2 sponges, 2 bivalves, 2 echinoderms, and 1 brachiopods. 21 of these taxa are easily identifiable at species level, while, in case of sponge *Geodia*, due to the difficulties to recognize finer diagnostic characteristics, identification was limited at genus level. The Field Guide consists of “Identification Cards” thought as a “self-sustaining” device that can be printed and plasticized for on-board activities. For each taxon, the Card reports: i) systematic classification; ii) scientific name, English common name and MEDITS Code; iii) in situ and labs photos of entire animal or of diagnostic details; iv) identifying morphological features; v) habitat preference; vi) distribution, geographic map and depth range. Furthermore, taxonomic remarks are reported for some species which could be confused with the target species. The Field Guide is conceived as a tool that can be updated as knowledge about the species grows. During the subsequent discussions the MEDITS Benthos WG proposed that the collection of total number and total weight data of the target megabenthos species reported in the Field Guide become mandatory during the MEDITS surveys and the Field Guide is included, as Annex, in an uploaded version of the MEDITS Handbook. The Group congratulated the MEDITS Benthos WG for the excellent work that has been done. Despite caution is needed when quantitatively analysing benthos data collected by trawl surveys, the Group agreed that this source of information is extremely useful to investigate the occurrence of species

living on the soft bottoms of the Mediterranean and encouraged the use of the guide for the identification of epibenthic species when possible.

Valentina Lauria made a presentation illustrating the work that been done on mapping the habitat distribution of *Isidella elongata*, at Mediterranean scale, using MEDITS survey data.

Pierluigi Carbonara presented the work done and ongoing (ageing of bamboo coral) on the deep-sea vulnerable marine ecosystem in the Western and Central Mediterranean characterized by the structuring species *Isidella elongata* and co-occurrence of this VME with essential fish habitats.

Maria Teresa Spedicato informed the Group about the work that has been done for the development of a regional database for the Mediterranean and Black seas in the frame of the RDBFIS project, financed by EU.

George Tserpes informed the Group about a recently started Horizon 2020 project (named B-USEFUL) that will be utilizing MEDITS data for the development of joint species distribution models for key Mediterranean demersal species.

4. Survey revisions

Jurgen Mifsud informed the Group about the need to shift the locations of 12 hauls in GSA 15 for various reasons (obstacles, minimization of depth variations, etc). Most shifts were of minor importance and it was noted, that they do not alter the haul distribution among depth strata. The group agreed with the presented modifications.

Fabio Fiorentino underlined the absence of MEDITS hauls in the eastern border of the Malta Bank after 2006. Since these grounds are very important in terms of EFH of several target and sensitive species and includes the East of Malta Bank Fishery Restricted Area implemented by the GFCM to protect nurseries of hake, the inclusion of the area from the eastern border of GSA 15 to 800 m depth of the Maltese slope was recommended.

Panagiota Peristeraki informed the Group about the need for certain changes in the Greek MEDITS sampling scheme, following a request of the Greek Ministry of Agriculture Development and Food in light of the GFCM recommendation for intensified monitoring of the red shrimp stocks. For this reason the addition of 14 more stations in the deep MEDITS zone was proposed, for the Greek GSAs. More specifically, the addition of six stations in GSA 20, four stations in GSA 22 and four stations in GSA 23 was proposed. It was

also proposed the addition of one very shallow station in the estuaries of Strymonas River (North Aegean) and the relocation of an already existing station in order to protect the vulnerable coral *Isidella elongata*, which was massively caught in the previous station's location. A map indicating the above changes was presented (Appendix 4). The group agreed with the presented additions/modifications and has suggested to consider the above additions when estimating abundance and biomass indexes for the respected GSAs, in order to ensure consistency in temporal trend estimates.

Nikolaos Kamidis noted the need to modify the format of TB and TC tables in order to allow storage of catch rates higher than one ton for any given species in a sampling station. He mentioned that such high catches of shortfin squid have been observed in few cases in GSA 22. The Group decided to examine the possibility of format modification, considering the impact that this may have to the existing tools for the quality control and analysis of MEDITS data.

The Group decided the formation of a WG coordinated, by Porzia Maiorano, with the responsibility of updating the Taxonomic list (TM) of species.

Nikolaos Kamidis pointed out that the establishment of ethical guidelines regarding the handling of animals during the survey may be needed under the light of recent European legislation. It was finally noted that relevant guidelines already exist in the MEDITS manual but their adequacy will be further examined.

Bearing in mind various changes/updates introduced in the survey during the most recent years, the Group stressed the necessity for the accomplishment of an update of the MEDITS manual as soon as possible. Concise text clarifying issues regarding the use of the MEDITS data, particularly from external users, will be also included in the update.

5. Other matters

Following a request from DG-MARE the Group agreed for the straightforward availability of the survey data for scientific purposes, in accordance with article 17 of Regulation (EU) 2017/1004.

Given that George Tserpes has already served as chairman of the Group for two consecutive periods it was decided the election of a new chairman. Following discussions within the Group it was unanimously agreed that Beatriz Guijarro (IEO-CSIC) will undertake the chairmanship of the MEDITS Steering Committee for the next two years.

It was decided that the next MEDITS coordination meeting will be held in Mazara del Vallo (Sicily, Italy) in

the spring of 2023 and will be hosted by the Institute for Coastal Marine Environment (IAMC) of the Italian National Research Council (CNR). Final arrangements about the venue will be made at a later stage.

6. Meeting closure

The Chairman thanked the hosts for their hospitality and the participants for their work during the meeting. The meeting was then adjourned.

APPENDIX 1

Meeting Agenda



2022 MEDITS Coordination Meeting Agenda

The meeting will start at 09.30 of October 24, 2022 and will end on October 25 (~17.00)

Meeting place: Ljubljana, SLOVENIA, City Hotel

Monday 24th October 2022

Morning session (09.30-13.00)

1. Welcome of the participants
2. Approval of the agenda
3. Outcomes of the previous Coordination meeting
4. Feedback from other relevant meetings and workgroups: Spatial Distribution of key species and life stages: models' review, best practices and mapping. Steps forwards from WKFISHDISH2 ICES Workshop.
5. Concise presentations (max 15 min) of the activities in the 2021 MEDITS surveys, by country/GSA, with special focus on problems, future planning, and extraordinary findings.

Afternoon session (14.30-17.30)

Continue on point 5.

Tuesday 25th October 2022

Morning session (09.00-13.00)

6. Relevant research activities
 - a. Presentation of the benthos field guide.
 - b. Mapping of *Isidella elongata* habitats using MEDITS survey data
 - c. Spatial distribution of VMEs assessed by MEDITS survey data in a conservation/management perspective
 - d. Comparison between the GOC-73 and a beam trawl regarding the sampling efficiency of benthic species
 - e. Development of the Regional Database for the Mediterranean & Black Seas: the RDBFIS project
 - f. The B-USEFUL Horizon 2020 project
7. Survey revisions
 - a. Updates on sampling schemes (Greece, Malta)
 - b. Updates on data file (TB, TC) format
 - c. Species list update

- d. Availability of the MEDITS data (EU request)
- e. Guide for end users of the MEDITS data
- f. Ethical guidelines for animal use during the survey
- g. Manual update

Afternoon session (14.30-17.00)

- 8. Planning of activities for the next twelve months, including dates and venue of the next meeting
- 9. Any Other Business
- 10. Election of chairman
- 11. Meeting closure

APPENDIX 2

List of Participants

No	Country	Institution	Name	Surname	e-mail
1	Croatia	IOR	Igor	Isajlović	igor@izor.hr
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APPENDIX 3 - Documents
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