

**Report of virtual meeting for 13<sup>th</sup> MEDiterranean  
International Acoustic Surveys  
(MEDIAS)**

in the framework of European Data Collection Framework (DCF)

Zoom, 02. December 2020

Steering Committee Report

## Introduction

Due to difficulties caused by COVID-19 that prevented regular 13<sup>th</sup> annual meeting from being organized in Ljubljana, Slovenia, in April 2020, the MEDIAS (MEDiterranean International Acoustic Surveys) Steering Committee decided to have only a short virtual meeting. MEDIAS chair, Vjekoslav Tičina, attended virtual RCG Med&BS 2020 meeting (31.08.-02.09.2020) and informed RCG about this issue.

Eventually, MEDIAS Steering Committee discussed draft Agenda by e-mail correspondence and decided to deal mainly with issues related to review and update of common publications for Special Issue of Mediterranean Marine Science journal.

Finally, MEDIAS Steering Committee virtual meeting was organized on 02 December 2020, hosted by Tea Juretić on Zoom platform, and chaired by Vjekoslav Tičina.

Virtual meeting was attended by 20 participants, experts from the European Union countries involved in acoustic surveys in the Mediterranean Sea - Croatia, Greece, France, Italy, Spain and other authors in common publications (see list of participants in Annex I).

The agenda of the 13<sup>th</sup> virtual MEDIAS Coordination Meeting (see ANNEX II) was adopted by all participants. Following the Agenda, the main aim of the meeting was to review and update information on common publications among experts, planned to be submitted in the Special Issue in Mediterranean Marine Science journal, and to coordinate future actions.

### **Review on the planned publication status**

During this virtual meeting, MEDIAS Steering Committee reviewed status of the 14 manuscripts planned to be submitted for publication in Special Issue of Mediterranean Marine Science Journal. Iole Leonori from CNR-IRBIM Italy presenting manuscript “History of the acoustic surveys in the Mediterranean Sea and use of the MEDIAS data” informed the Committee that draft manuscript was already in circulation among authors, and some comments were received. New, updated version will circulate among authors again before 25<sup>th</sup> December, and final manuscript should be submitted in MMS journal by the end of January 2021.

Kristina Pikelj from PMF-Croatia informed MEDIAS Steering Committee that two papers, based on use of MEDIAS acoustic data coming from the sea bed, are planned to be submitted to MMS for Special Issue. The first one, “Geomorphologic characterization of rocky bank in the Jabuka Islet region (Central Adriatic): acoustic imagery based on the split-beam echo-sounder data” is submitted and in review. She also explained that the second paper about the use of split-beam echo-sounder acoustic data from sea bed for characterization of surface sediment in the mixed carbonate-siliciclastic shelf environment in Eastern Adriatic is not finished yet. The intention is to finish it soon and circulate among authors at the beginning of January 2021, planning to be submitted to MMS in time.

Angelo Bonanno from CNR-IAS Italy presenting the paper about comparison between acoustic data collected during daytime vs. night-time and looking for correction factors by taking into account zooplankton abundance effects, informed MEDIAS Steering Committee that the manuscript was submitted at the end of October 2020 and is under review.

Zacharias Kapelonis from HCMR-Greece informed MEDIAS Steering Committee about some data issues related to manuscript titled: “Approximate target strength – length relations for the European anchovy (*Engraulis encrasicolus*) based on in situ measurements in the Mediterranean Sea”. However, all issues were successfully resolved, causing just a small delay in data processing. The manuscript will be circulated among authors during the following week and it should be finalized in time for submission.

Marianna Giannoulaki from HCMR-Greece informed the participants about manuscript dealing with differences and similarities in the spatial aggregations of anchovy and sardine across the Mediterranean Sea. This manuscript has not been circulated among the authors yet, but it is almost finalized. The delay was caused by some difficulties in data analyses that have since been resolved. It is expected that this manuscript will be sent to authors by 15<sup>th</sup> December 2020 and submitted to MMS by the end of January 2021.

Marco Barra from CNR-ISMAR Italy informed the group that manuscript on survey design has already been circulated among authors and their comments were received. In the week following this meeting, the manuscript will be finalized, considering comments received, and final version will be sent to authors. In line with comments received, GSA 1 will be included in analyses also. Manuscript is expected to be submitted to MMS by the end of January 2021.

Tarek Hattab from IFREMER-France, explained that after some preliminary analyses on geographic diversity resulting in no clear pattern in data, he decided to change initial idea, and decided to make a new analysis with focus on environmental drivers of body-size structure of anchovy and sardine. It caused a small delay in manuscript preparation, but he announced that the first draft will be circulating among authors in the next two days. He invited the authors to send their comments by the end of December 2020, and expects that final manuscript will be submitted in time to be included in Special Issue.

Ana Ventero from IEO-Spain informed MEDIAS Steering Committee that the paper on zooplankton has already been circulated two times among authors and she is waiting for additional comments on zooplankton sampling. The manuscript will be finalized and submitted by the end of January 2021.

The chair informed the participants about e-mail communication regarding the manuscript on spatial variability of *Trachurus trachurus*. Gualtiero Basilone explained to participants that analyses of data available have been performed with different models. However, in all cases there was a problem with results showing an unclear pattern, particularly in Tyrrhenian area. Therefore, there is a need to start the analyses from the beginning, possibly with a new data set, which is time consuming. Unfortunately, for this reason, the manuscript on spatial variability of *Trachurus trachurus* is not likely to be prepared in time for inclusion in MMS Special Issue.

Andrea De Felice from CNR-IRBIM Italy informed the participants about updates in the manuscript on European sprat and round sardinella in different areas of the Mediterranean Sea. It has already been circulated among authors. Comments have been received, and there were some difficulties with statistical

analyses where some complications occurred. The improvement in statistical analyses can be expected, and after final check of results obtained, the manuscript will be updated, circulated among authors one more time and finalized. It is expected that this manuscript will be ready by the end of January 2021.

Tea Juretić from IOF-Croatia informed MEDIAS Steering Committee about manuscript on effects of invasive ctenophore *Mnemiopsis leidyi* on zooplankton and anchovies in the northeastern Adriatic Sea. She mentioned that this manuscript was submitted to MMS in May 2020. Comments from two reviewers were received, and authors are working on modifications requested in a second round of review. It is expected that this updated and corrected manuscript will be resubmitted to MMS shortly.

Rosalia Ferreri from CNR-IAS Italy informed the group about manuscript on geographic variability in size at maturity of European anchovy. This manuscript has been circulating among coauthors and is being updated in line with comments received. It is expected that it will be ready for submission before the end of January 2021.

Sara Malavolti from CNR-IRBIM Italy informed the participants about manuscript on genetic diversity of anchovy in the Adriatic Sea. Sending the manuscript to coauthors has been attempted already two times, but due to difficulties in the e-mail communication, some coauthors received it only recently. The manuscript will be finalized in accordance with comments received, and it is expected to be submitted to MMS after Christmas holidays.

## **Information from Guest Editors of MMS Special Issue**

After short presentations of manuscripts planned to be submitted to MMS for Special Issue, Marianna Giannoulaki as one of SI guest editors informed MEDIAS Steering Committee about two important issues:

- 1) As regards to English language, final editing should be done by the acceptance. It means that papers written in good English, in order to be clearly readable for reviewers, may be submitted in journal. However, proper language editing has to be done before final acceptance.
- 2) Regarding the costs of Special Issue, she mentioned that cost is relatively low, about 50 Eur/paper, and total cost can be estimated at approx. 600 Eur. However, she highlighted the fact that invoice cannot be split into multiple instances, for all Institutes to be included, but that a single invoice will be issued to one or maximum two Institutes. Authors need to consider this fact. Invoice is going to be issued after acceptance.

Regarding question about acceptance letter for individual papers, guest editor answered that all manuscripts will be treated as individual papers. As soon as editor receives satisfactory answers from reviewers, there should be no problem to send acceptance letter to corresponding author. However, principal editor needs to be sure about sufficient number of core acoustic papers for Special issue first. Guest editor will ask principal Editor for technical details to clarify this issue.

## **Terms of reference: dates and venue of next meeting (2021)**

Tomaž Modić informed MEDIAS Steering Committee about his contacts with Ministry in Slovenia regarding possibility to organize next MEDIAS meeting as it was planned in 2020 but was postponed due to COVID-19. He informed the Committee about administrative planning procedures, and that there should be no problem to hold the meeting in Slovenia as planned in 2020, if COVID-19 situation makes it possible. There is a need to decide on meeting dates. Roughly, it was suggested that meeting could take place during April 2021.

In case the situation with COVID-19 does not permit having a physical meeting in Slovenia, Tomaž confirmed that, as an alternative, his team will be able to organize virtual on-line meeting on Zoom or Skype.

## **Other issues**

Due to COVID-19 circumstances, it has been recognized that some surveys were substantially delayed (i.e. in Gulf of Lyon), and submission of data from surveys and its usefulness for stock assessment is questionable. It has been concluded that, in any case, there is an obligation for EU countries to provide data from the survey, but in comments provide information that survey has been done out of the season.

Also, it has been explained that in some areas (i.e. Eastern Ionian Sea) survey was not performed at all, with vessel related issues adding on the ones caused by COVID-19.

## ANNEX I

**List of participants**

<b>Name</b>	<b>e-mail</b>	<b>Country</b>	<b>Institution</b>
Angelo Bonanno	<a href="mailto:angelo.bonanno@cnr.it">angelo.bonanno@cnr.it</a>	Italy	CNR-IAS
Gualtiero Basilone	<a href="mailto:gualtiero.basilone@cnr.it">gualtiero.basilone@cnr.it</a>	Italy	CNR-IAS
Marco Barra	<a href="mailto:marco.barra@cnr.it">marco.barra@cnr.it</a>	Italy	CNR-IAS
Rosalia Ferreri	<a href="mailto:rosalia.ferreri@iamc.cnr.it">rosalia.ferreri@iamc.cnr.it</a>	Italy	CNR-IAS
Andrea De Felice	<a href="mailto:andrea.defelice@cnr.it">andrea.defelice@cnr.it</a>	Italy	CNR-IRBIM
Ilaria Costantini	<a href="mailto:Ilaria.costantini@cnr.it">Ilaria.costantini@cnr.it</a>	Italy	CNR-IRBIM
Iole Leonori	<a href="mailto:iole.leonori@cnr.it">iole.leonori@cnr.it</a>	Italy	CNR-IRBIM
Sara Malavolti	<a href="mailto:sara.malavolti@irbim.cnr.it">sara.malavolti@irbim.cnr.it</a>	Italy	CNR-IRBIM
Tomaz Modic	<a href="mailto:Tomaz.modic@zzrs.si">Tomaz.modic@zzrs.si</a>	Slovenia	FRIS
Kostantinos Tsagarakis	<a href="mailto:kontsag@hcmr.gr">kontsag@hcmr.gr</a>	Greece	HCMR
Marianna Giannoulaki	<a href="mailto:marianna@hcmr.gr">marianna@hcmr.gr</a>	Greece	HCMR
Zakarias Kapelonis	<a href="mailto:zkapelonis@hcmr.gr">zkapelonis@hcmr.gr</a>	Greece	HCMR
Ana Ventero	<a href="mailto:ana.ventero@ieo.es">ana.ventero@ieo.es</a>	Spain	IEO
Magdalena Iglesias	<a href="mailto:magdalena.iglesias@ieo.es">magdalena.iglesias@ieo.es</a>	Spain	IEO
Tarek Hattab	<a href="mailto:tarek.hattab@ifremer.fr">tarek.hattab@ifremer.fr</a>	France	IFREMER
Denis Gašparević	<a href="mailto:denis@izor.hr">denis@izor.hr</a>	Croatia	IOF
Tea Juretić	<a href="mailto:juretic@izor.hr">juretic@izor.hr</a>	Croatia	IOF
Vjekoslav Tičina	<a href="mailto:ticina@izor.hr">ticina@izor.hr</a>	Croatia	IOF
Andrea Budiša	<a href="mailto:budisa.andrea@hotmail.com">budisa.andrea@hotmail.com</a>	Croatia	IRB
Kristina Pikelj	<a href="mailto:kpikelj@geol.pmf.hr">kpikelj@geol.pmf.hr</a>	Croatia	PMF

## **Institutions Acronyms**

**CNR-IAS:** Consiglio Nazionale delle Ricerche. Istituto per lo studio degli impatti antropici e sostenibilità in ambiente marino. Capo Granitola, Italy

**CNR-IRBIM:** Consiglio Nazionale delle Ricerche. Istituto per le Risorse Biologiche e le Biotecnologie Marine. Ancona, Italy

**FRIS:** Fisheries Research Institute of Slovenia. Ljubljana, Slovenia

**HCMR:** Hellenic Center of Marine Research, Greece

**IEO:** Instituto Español de Oceanografía. Spain

**IFREMER:** Institut Français de Recherche pour l'exploitation de la Mer, France

**IOF:** Institute of Oceanography and Fisheries. Split, Croatia

**IRB:** Institute Ruđer Bošković, Croatia

**PMF:** Faculty of Science, Zagreb, Croatia

**13<sup>th</sup> MEDIAS Coordination Group Meeting**  
**(Mediterranean International Acoustic Surveys)**

**Virtual Meeting - Agenda**

**Wednesday 02/12/2020**

**Session 1.**

14.30-14.35: Opening of the meeting & welcome. Adoption of the agenda

14.35-15.00: Review and update of common publications on the Special Issue in Mediterranean Marine Science journal

- History of the acoustic surveys in the Mediterranean Sea and use of the MEDIAS data. Corresponding author: Iole Leonori (5')
- Characterization of surface sediment in the mixed carbonate-siliciclastic shelf environment (Eastern Adriatic) using split-beam echo-sounder. Corresponding author: Kristina Pikelj (5')
- Geomorphologic characterization of rocky bank in the Jabuka Islet region (Central Adriatic): acoustic imagery based on the split-beam echo-sounder data. Corresponding author: Kristina Pikelj (5')
- Comparison between daytime and night-time acoustic data: looking for correction factors by taking into account zooplankton abundance effects. Corresponding author: Angelo Bonanno (5')
- Approximate target strength – length relations for the European anchovy (*Engraulis encrasicolus*) based on in situ measurements in the Mediterranean Sea. Corresponding author: Zacharias Kapelonis (5')

**Session 2.**

15.00-15.45: Review and update of common publications on the Special Issue in Mediterranean Marine Science journal (cont.)

- Differences and similarities in the spatial aggregations of anchovy and sardine across the Mediterranean Sea. Corresponding author: Marianna Giannoulaki (5')
- Survey design efficiency in relation to species characteristics and environmental features in multi-species acoustic surveys. Corresponding author: Marco Barra (5')
- Environmental drivers of body-size structure of anchovy and European pilchard in Mediterranean Sea Corresponding author: Tarek Hattab (5')
- Influence of the enrichment mechanism in the zooplankton scattering layers spatial distribution and composition in the Mediterranean Sea. Corresponding author: Ana Ventero (5')
- Linking spatial variability of *Trachurus trachurus* to ecosystem differences in the Central Mediterranean sea. Corresponding author: Gualtiero Basilone (5')

- Identification of potential environmental drivers influencing the abundance of European sprat (*Sprattus sprattus*) and round sardinella (*Sardinella aurita*) in different areas of the Mediterranean Sea. Corresponding author: Andrea De Felice (5')
- Distribution, diet and effects of invasive ctenophore *Mnemiopsis leidyi* on zooplankton and anchovies in the northeastern Adriatic Sea. Corresponding author: Tea Juretic (5')
- Geographic variability in size at maturity of European anchovy (*Engraulis encrasicolus*) within the Mediterranean Sea. Corresponding author: Rosalia Ferreri (5')
- Genetic diversity, estimation of effective number of breeders and genetic structure of anchovy, *Engraulis encrasicolus*, in the Adriatic Sea. Corresponding author: Vincenzo Caputo Barucchi/ Sara Malavolti (5')

15.45-16.00: *Coffee break*

### **Session 3.**

16.00-16.15: Guest Editors: Comments and suggestions

16.15-16.25: Terms of reference for the next meeting (2021); dates and venue of next meeting

16.25-16.40: Other issues (if any)

16.40: Closure of the meeting

