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BLACKSEA4FISH PROJECT
2018-2019
Activities and achievements

BACKGROUND

The **BlackSea4Fish** project was established in 2016 to contribute to the sustainable management of Black Sea fisheries, b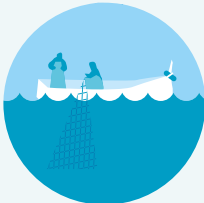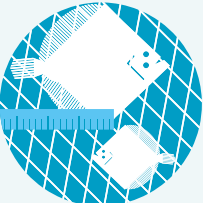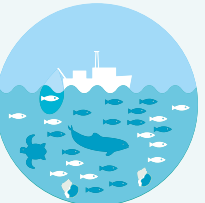y providing scientific and technical support to the work of the GFCM in the region, coordinating priority activities of the GFCM Subregional Group on Stock Assessment in the Black Sea (SGSABS) and the Working Group on the Black Sea (WGBS).

The project involves Bulgaria, Georgia, Romania, the Russian Federation, Turkey and the European Union, supporting them in fulfilling their objectives with regards to Black Sea fisheries, organizing activities in line with agreed workplans and in turn benefiting from their technical and, as appropriate, financial/in-kind contributions.

The project bridges gaps at the regional level, providing the WGBS with the necessary resources to efficiently execute its priority actions and supporting the implementation of the mid-term strategy (2017-2020) towards the sustainability of Mediterranean and Black Sea fisheries.

BlackSea4Fish groups its activities under five outputs:

BlackSea4Fish fulfils these objectives in a variety of ways. These include:

- ■ Recruiting external experts to address priority topics and carry out ad-hoc studies
- ■ Supporting participation of Black Sea scientists in the SGSABS and other WGBS / GFCM meetings and activities
- ■ Coordinating and supporting the launch and implementation of relevant mid-term strategy activities, such as surveys-at-sea, vessel monitoring and control systems, socio-economic surveys and bycatch monitoring programmes
- ■ Organizing new ad-hoc activities in response to knowledge gaps identified by the WGBS, in particular with the aim of improving stock assessment and knowledge of Black Sea fisheries.
- ■ Promoting training opportunities and capacity-building actions
- ■ Managing initiatives for outreach and dissemination of project results

Together with the Project Coordinator, BlackSea4Fish counts on a team based at the GFCM Subregional Technical Unit for the Black Sea (Black Sea Unit – BSU) in Burgas, Bulgaria as well as the support of the GFCM Secretariat units at GFCM headquarters in Rome, Italy. The project's work is guided by the BlackSea4Fish Project document, discussed at a Steering Committee composed of national focal points, and reviewed by the WGBS and the GFCM annual session.

OUTPUT 1

aims to increase, through systematic stock assessment of priority species, existing scientific knowledge to support fisheries management and reverse the current overexploitation of Black Sea stocks, limiting the percentage of stocks outside biologically safe limits.

OUTPUT 2

aims to implement actions to enhance and disseminate knowledge on small-scale and recreational fisheries, with a view to supporting livelihoods in small-scale fishing communities, including by promoting decent work.

OUTPUT 3

aims to assess IUU fishing rates in the Black Sea, and operationalize a modular approach to vessel monitoring systems (VMS) and control systems. This approach will ultimately contribute to the evaluation of the implementation of the RPOA-IUU.

OUTPUT 4

aims to implement a bycatch monitoring programme to reduce discard rates and incidental catches of vulnerable species, while also working towards strategies for adapting to climate change and dealing with non-indigenous species in the Black Sea.

OUTPUT 5

aims to promote and disseminate the project results with relevant stakeholders, with a view to increasing participation as well as strengthening technical and institutional cooperation.

WORKING GROUP ON THE BLACK SEA (WGBS)

The Working Group on the Black Sea was created by the GFCM in 2010 as an ad hoc mechanism for scientific work and decision-making for Black Sea riparian states: the issues in the region necessitated a regionally influential, widely recognized institutional arrangement. WGBS objectives are to provide scientific advice to the GFCM on matters linked to fisheries management and conservation, including biological, social and economic aspects.

PRIORITY SPECIES

The GFCM agreed a list of Black Sea priority species for which advice should be produced, after consultation with experts and managers and based on a combination of information, socio-economic importance and conservation concern.

BLACK SEA	
Pelagic species	European anchovy (Engraulis encrasicolus)
	European sprat (Sprattus sprattus)
	Horse mackerel (Trachurus mediterraneus)
Demersal species	Turbot (Scophthalmus maximus)
	Whiting (Merlangius merlangus)
	Red mullet (Mullus barbatus)
Non-indigenous species	Rapa whelk (Rapana venosa)
Species of conservation concern	Piked dogfish (Squalus acanthias)

EXECUTIVE SUMMARY

Between 2018-2019, the **BlackSea4Fish** project focused on increasing scientific knowledge to support fisheries management, by improving data collection and scientific advice for priority species through scientific surveys and enhanced stock assessment (output 1), as well as through capacity-building (output 5). It also launched select mid-term strategy activities in specific countries, in response to needs identified over the years by the Subregional Group on Stock Assessment in the Black Sea (SGSABS) and in line with the recommendations and workplan of the Working Group on the Black Sea (WGBS).

Notably, the project organized data preparation meetings for **sprat** and **turbot** (two for each species, as well as bilateral consultations) and assisted the benchmark sessions. For **anchovy**, efforts concentrated on age reading (the project organized an otolith exchange and a dedicated expert meeting) and stock assessment (trials were conducted with a statistical catch at age assessment model, SAM). For **rapa whelk** the project did a significant amount of work towards fulfilling the requirements of the research programme adopted by the GFCM, including a coordination meeting for its implementation, the harmonization of data collection, the planning of ad-hoc surveys-at-sea (definition of a survey protocol and performance of an experimental trawl survey) and a workshop to define an age reading protocol for future use. For the first time, training of scientists from all riparian countries on pelagic acoustic surveys and a transnational acoustic survey-at-sea in Georgia were organized with the use of a Turkish research vessel.

Work carried out in support of the **mid-term strategy** activities included i) an increased focus on **small-scale fisheries** (output 2), for which a comprehensive socio-economic survey was launched in select Black Sea countries; and ii) the improvement of **bycatch monitoring** (output 4), for which data collection for discards through observers on board was launched in select countries.

Finally, the project launched a number of initiatives under output 5 to target the irregular regional expertise in stock assessment and models, to improve **technical capacity** in the Black Sea (a need frequently highlighted by the WGBS), and to disseminate the project results.

The project launched a number of initiatives to target the irregular regional expertise in stock assessment to improve the technical capacity in the Black Sea.

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OUTPUT 1
Scientific advice in support of fisheries management

In order to overcome the data gaps and harmonization needs identified by the SGSABS, and thus to work towards more accurate stock assessment of Black Sea priority species, in 2018-2019 the BlackSea4Fish Project organized three data preparation meetings (for sprat, turbot and multi-species), two benchmark sessions (for sprat and turbot), an age reading workshop, and other ad-hoc initiatives. In addition, to meet the need for fishery-independent data for stock assessment requirements, BlackSea4Fish oversaw the execution of scientific surveys-at-sea. It also launched a research programme for rapa whelk.
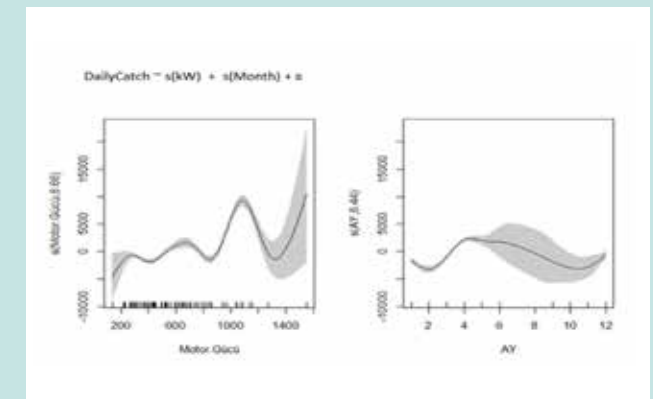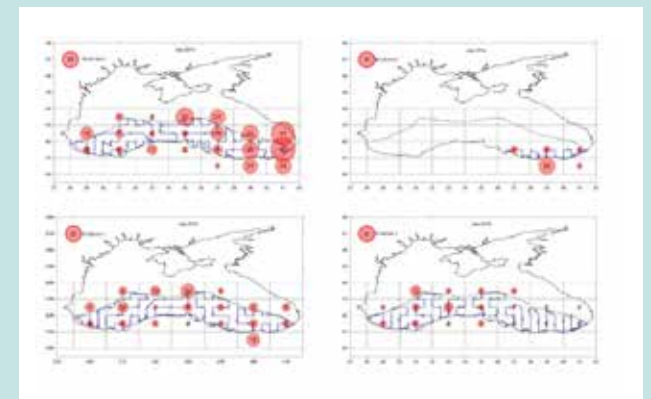
Figure. 1. Standardization of Turkish CPUE data

Figure. 2. Sprat hydro-acoustic survey data (2011-2018), Turkish Black Sea

STOCK ASSESSMENT INPUT DATA FOR EUROPEAN SPRAT COLLECTED

Technical meetings were organized to address deficiencies affecting the quality of the advice provided on the status of European sprat *(Sprattus sprattus)* in the Black sea, namely:

- Lack of survey data
- A need for standardization of commercial CPUE used for tuning
- Concerns about the consistency of age readings.

SPRAT DATA PREPARATION MEETING – TURKISH DATA
Date: 27 – 29 September 2018
Venue: Trabzon, Turkey

OBJECTIVE
Gather and prepare all relevant data and information ahead of the sprat benchmark assessment session

The meeting was coordinated by BlackSea4Fish and attended by experts from the Turkish Central Fisheries Research Centre (SUMAE) and the Turkish General Directorate of Fisheries and Aquaculture. Its objective was to gather and prepare all relevant data and information ahead of the benchmark session for the species.

RESULTS
- A roadmap was produced to improve the stock assessment of European sprat
- The Turkish Commercial CPUE used in the former assessments was re-analyzed (Fig.1), with the support of DG Fisheries and Aquaculture of Turkey
- Two sets of abundance indices (July and November) were estimated for the species

- A new tuning index of standardized CPUE was prepared considering the possible differences associated with the power of the fishing vessels and the timing of the fishing season
- Hydro-acoustic survey data (2011-2018) collected mainly for anchovy in the Turkish Exclusive Economic Zone (EEZ) was re-analyzed for sprat (Fig. 2). Work continued after the meeting with the technical support of BlackSea4Fish.

DATA PREPARATION MEETING – BULGARIAN AND ROMANIAN DATA
Date: 13 – 15 November 2018
Location: Burgas, Bulgaria

OBJECTIVE
Gather and prepare all relevant data and information, with a specific focus on sprat, ahead of the SGSABS and the sprat benchmark assessment session

The meeting was coordinated by BlackSea4Fish and attended by experts from the Bulgarian scientific institutes Institute of Oceanology – Bulgarian Academy of Sciences (IO-BAS), nstitute of Biodiversity and Ecosystem Research – Bulgarian Academy of Sciences (IBER-BAS) and Institute of Fishery Resources (IFR), as well as experts from the Romanian National Institute for Marine Research Development (NIMRD). Its objective was to gather and prepare all relevant data and information, with a specific focus on sprat, ahead of the SGSABS and the sprat benchmark session for the species.

RESULTS
- Bulgarian and Romanian data for all commercially exploited species was compiled
- An otolith exchange exercise was initiated to analyze whether the ages of sprat determined by different Black Sea experts are consistent. The exercise, involving experts from three countries, is still in progress.

LINK

Report available at
www.fao.org/gfcm/ reports/technical- meetings/detail/ en/c/1206472/

BENCHMARK SESSION FOR SPRAT

Date: 26 – 27 November 2018

Venue: Constanta, Romania

OBJECTIVE
Agree future methodologies and current sprat stock status

The session was organized within the remit of the SGSABS and benefited from the data preparation meetings summarized above. BlackSea4Fish also facilitated the presence of two external reviewers during the benchmarking.

RESULTS

■ All assumptions to be employed in the assessment were agreed upon and a number of different methodologies to determine stock status were used, moving away from the use of integrated-catch-at-age (ICA)

■ Based on the contrasting information provided by the alternative models tested, and given the expert perception of the stock (i.e. a decrease in SSB and length-structure), the results of the Extended Survivor Analysis (XSA) model were agreed with

■ Temporary precautionary advice was provided and it was agreed benchmark work would be completed at a later date.

AGE READING OF BLACK SEA ANCHOVY DEVELOPED

BlackSea4Fish work on Black Sea anchovy (*Engraulis engrasicolus ponticus*) focused on age reading. In fact, multiple issues linked to the ages used in the anchovy stock assessment had been highlighted by the SGSABS in recent years, in particular in relation to a very low internal consistency of catch-at-age data, which suggested methodological differences in the ages estimated by different specialists.

WORKSHOP ON AGE READING OF SELECTED BLACK SEA SPECIES
Date: 28 January – 1 February 2019
Venue: Trabzon, Turkey

The meeting, organized by BlackSea4Fish, focused on anchovy and rapa whelk, with experts from all six Black Sea countries in attendance. One of the objectives was to review the anchovy ageing procedures and sample processing techniques; and agree on standardized ageing schemes in order to increase expertise at Black Sea level. This was preceded by an anchovy otolith exchange exercise coordinated by BlackSea4Fish, the results of which were also analyzed during the workshop.

RESULTS
- The sources of the inconsistency in the ages of Black Sea anchovy used for stock assessment were identified after a series of practical exercises
- A common protocol for anchovy age determination was prepared.

OBJECTIVE
Review the anchovy ageing procedures and sample processing techniques

LINK
Report available at *www.fao.org/gfcm/ reports/technical- meetings/detail/ en/c/1195227/*

STOCK ASSESSMENT INPUT DATA FOR BLACK SEA TURBOT COLLECTED

In order to address the main discrepancies identified by the SGSABS in the stock assessment of turbot (*Scophtalmus maximus*), in particular the standardization of abundance indices estimated through bottom trawl surveys, BlackSea4Fish coordinated a number of initiatives

TURBOT DATA PREPARATION MEETING
Date: 27 – 30 May 2019
Venue: Burgas, Bulgaria

BlackSea4Fish coordinated this meeting, which was attended by experts from all Black Sea countries and the European Union. Select national experts holding fisheries-independent turbot data were contracted to compile the disaggregated (haul-by-haul) data gathered from all possible sources. An external expert on the analysis and standardization of survey data (from COISPA, Italy) was invited to help Black Sea experts analyze the resulting data.

RESULTS
- The disaggregated raw data was compiled in a new data entry format compatible with the MEDITS protocol and re-analyzed utilizing the tools developed for the spatiotemporal analysis and standardization of such data.

One critical issue raised during the meeting regarded the abrupt fluctuations in the landings, coinciding with the periods when the Black Sea ecosystem experienced drastic changes due to a combination of factors such as distrophication in the major river mouths, invasion of exotic species, and changes in the climatic regime.

OBJECTIVE
Compile the disaggregated (haul- by-haul) survey data

LINK
The report is available on the GFCM Extranet at *http://www.fao. org/gfcm/technical- meetings/detail/ en/c/1234784/*
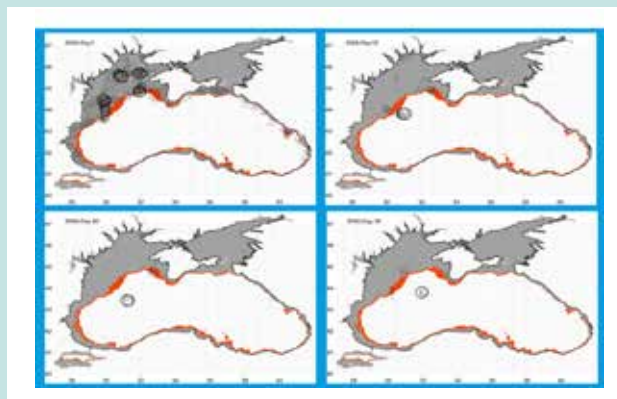
Image 1. Turbot data preparation meeting

Figure. 3. Larval transport model for the Black Sea turbot

As major forcing in the landing fluctuations pointed to non-fishery factors, it was agreed to investigate which environmental proxies could cause such changes. BlackSea4Fish investigated possible sources of data. Satellite-driven particulate organic matter (POM) (as a quantitative surrogate of eutrophication) and changes in the mesoscale circulation patterns as incurred from satellite-based sea level height (as the main driver of larval transport) were considered as appropriate proxies. Two sets of long time series were prepared for each of these parameters and presented during the turbot benchmark assessment session.

COORDINATION MEETING ON TURKISH TURBOT DATA
Date: 15 May 2018
Location: Ankara, Turkey

OBJECTIVE
Compile and improve the quality of Turkish turbot data

The meeting was organized with Turkish turbot experts to improve the quality and completeness of the turbot data to be used by the SGSABS.

RESULTS
- The data used in the SGSABS turbot stock assessments were reviewed and the sources of these data were investigated
- A roadmap was prepared to access the data in the archives of institutes and universities
- A very long data set (1991-2018) of length frequency distributions of Turkish turbot landings data was compiled with the support of SUMAE and the DG Fisheries and Aquaculture of Turkey. This new data replaced the Turkish catch-at-age matrix synthetically produced during previous stock assessments
- BlackSea4Fish also supported the creation and reanalysis of a data set from the results of a SUMAE turbot mark-recapture experiment carried out between 1999 and 2002. The data consisted of the true ages of 570 marked and recaptured turbots along with their total lengths. A new ALK was derived from this new data source, with the aim of finding a practical solution to the possible mismatches arising from the age-reading problem.

BENCHMARK SESSION FOR BLACK SEA TURBOT
Date: 8 – 12 July 2019
Location: Burgas, Bulgaria

Date: 16 – 17 September 2019
Location: Trabzon, Turkey

The session was organized in two parts within the remit of the SGSABS. It benefited from the data preparation meetings organized by BlackSea4Fish, which also facilitated the presence of two external reviewers during the benchmark.

The report of the meeting will be available after the benchmark concludes.

RESULTS
- All assumptions to be employed in the assessment were agreed upon and two different methodologies (state-space assessment mode [SAM] and assessment for all [a4a] model) were used to determine stock status
- The outcomes of both models were compared and an agreement was reached on formulating future advice using the SAM model
- The current fishing mortality and spawning stock biomass were estimated
- The need to revise and estimate new reference points for fishing mortality and biomass was underlined
- A list of issues to be tackled before the next benchmark was drafted, including further improvement of data quality (surveys, in particular) and an estimation of IUU fishing.

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Image 2. Workshop on age reading of selected
Black Sea species

Image 3. Workshop on the harmonization of data collection
at landing sites and in scientific surveys-at-sea

KNOWLEDGE ON RAPA WHELK IMPROVED

Following the GFCM's adoption of Recommendation GFCM/42/2018/9 on a regional research programme for rapa whelk (*Rapana venosa*) fisheries in the Black Sea, BlackSea4Fish led the launch and implementation of the programme for 2019-2020, in line with the roadmap approved and included in the recommendation.

Coordination meetings – identification of research programme needs

Three meetings for Black Sea specialists were organized between December 2018 and January 2019 to identify necessities for implementing the WGBS workplan on rapa whelk and running preliminary tests. These included:

- The need to eliminate differences in landing data collection programmes currently carried out by most of the Black Sea riparian countries
- The importance of age determination in this species, the difficulties involved, and the (related) need for training
- Fundamental requirements for conducting a harmonized scientific survey-at-sea, such as sampling gear, protocol and sampling period.

WORKSHOP ON AGE READING OF SELECTED BLACK SEA SPECIES
Date: 28 January – 1 February 2019
Location: Trabzon, Turkey

The meeting, organized by BlackSea4Fish, focused on anchovy and rapa whelk, with experts from all six Black Sea countries in attendance. One of the objectives was to address the issues identified in the preparatory meetings, in particular in relation to the biology and growth of the species, so to increase expertise at Black Sea level.

OBJECTIVE
Address the issues identified in the preparatory meetings, in particular in relation to the biology and growth of the species

RESULTS

- An age reading for rapa whelk was successfully achieved; the most accurate reading was taken from a statolith – however, this was not deemed practical for use in the field.
- The importance of conducting an additional comparative study targeting standardization of a more practical method was underlined, with a preference for the use of external spawning marks.
- An additional comparative study, utilizing the accuracy of statoliths to rectify the uncertainties encountered in the external spawning marks method was suggested.

The additional comparative studies have also been prepared by external experts; they're currently being edited and will be made available through the **BlackSea4Fish** webpage.

WORKSHOP ON THE HARMONIZATION OF DATA COLLECTION AT LANDING SITES AND IN SCIENTIFIC SURVEYS-AT-SEA
DATE: 3 – 5 April 2019
LOCATION: Burgas, Bulgaria

As a follow-up to the issues identified during the age reading workshop and an initial meeting during the FishForum, this workshop was attended by all four Black Sea countries exploiting the rapa whelk stock. Delegates discussed similarities and dissimilarities in national methodologies for collecting fisheries-dependent data.

RESULTS

- The technical, administrative and financial aspects of the joint rapa whelk survey (to be conducted synchronously in all Black Sea countries) were discussed and agreed
- The appropriateness of the GFCM Technical Guidelines for Scientific Surveys in the Mediterranean and the Black Sea – procedures and sampling for beam trawl surveys for Black Sea rapa whelk were evaluated – the guidelines were modified according to the specific features of the Black Sea and the species.

LINK

The workshop report is available at *www.fao.org/gfcm/reports/technical-meetings/detail/en/c/1195227/*

LINK

The report of the workshop, including 'Beam trawl surveys for Black Sea Rapa whelk: Guidelines and Methodologies', is available at *www.fao.org/gfcm/reports/technical-meetings/detail/en/c/1196000/*

Image 4. The experimental rapa whelk scientific survey, Trabzon

Image 5. The experimental rapa whelk scientific survey, Trabzon

SURVEYS-AT-SEA FOR RAPA WHELK

An experimental survey was organized in Trabzon on 22–26 July 2019. Experts tasked with coordinating future rapa whelk beam trawl surveys met onboard two commercial beam trawl vessels and tested the applicability of the newly developed age reading methodology and beam trawl protocol. The guidelines of the beam trawl survey for rapa whelk were revised based on the field experience.

The draft protocol 'Beam trawl surveys for Black Sea rapa whelk: guidelines and methodologies', including the field experience-based revisions, is currently being edited and will be made available through the BlackSea4Fish Project webpage.

Two joint research surveys for Rapa whelk, as envisaged in the research programme, are being planned for 2020 in coordination with the research institutes of the five countries involved.

JOINT SCIENTIFIC SURVEYS-AT-SEA LAUNCHED

Following a request from the Ministry of Environmental Protection and Agriculture of Georgia, the first transnational survey-at-sea was organized in December 2018 under the stewardship of BlackSea4Fish. It was made possible thanks to the Turkish Ministry of Agriculture and Forestry, which made available the research vessel Sürat Araştırma 1 and its crew. The hydro-acoustic survey obtained information to support estimates of the status of pelagic resources in Georgia. The survey also facilitated the scientific exchange of up-to-date practices on the assessment of pelagic resources, thus empowering Georgian scientists to perform these duties in the future.

SGSABS FURTHER SUPPORTED

The SGSABS benefited from work related to the data preparation meetings organized by BlackSea4Fish (summarized above), as well as from financial support for expert participation.

Furthermore, in response to a request of the seventh WGBS (2018), during the fifth SGSABS (Constanta, Romania, 26 November – 1 December 2018), BlackSea4Fish experimented with using the SAM model to assess Black Sea anchovy. Problems were identified, with a view to improving the quality of the assessment in the future.

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OUTPUT 5
COOPERATION, OUTREACH AND WELL DISSEMINATED RESULTS

A pool of Black Sea experts in fisheries and fisheries-related sciences is crucially needed in order to jumpstart many of the activities to be performed through the BlackSea4Fish project. A number of initiatives were launched to target the irregular regional expertise in stock assessment and models, and in response to the need to level-up the technical capacity in the Black Sea – a requirement often underlined by the WGBS.

STOCK ASSESSMENT TRAINING

A hands-on training session for scientists from Black Sea countries was organized during an ichthyoplankton/ hydroacoustic survey conducted by a Turkish Research vessel in the southern Black Sea in July 2018. It allowed the scientists to share their experience and learn from others on various aspects of surveying at sea, including handling and processing samples, identification of fish aggregations on the echograms, age readings and the like. On the same occasion, a series of lectures on the theories of fisheries acoustics and on application of post-processing tools (e.g. EchoView) were presented by a hydro-acoustic expert from Wageningen Marine Research (the Netherlands).

BlackSea4Fish supported the participation and contribution of several Black Sea experts to the GFCM Forum on Fisheries Science (FAO headquarters, December 2018), which proved an opportunity for the exchange of expertise and the presentation of Black Sea work during the thematic seminars and poster sessions.

Black Sea experts were sponsored to take part in external trainings, such as AMARE-MED: Advanced school on ecosystem approach to fisheries, which took place in July 2019. These focused on data-limited stocks.

TRAINING OF TRAINERS

As had already been identified during the inception of the BlackSea4Fish project, the desired level of expertise is difficult to reach with one or even with a series of short training courses. To identify the topics for which training was most needed in the region, a questionnaire was prepared (results reproduced in Appendix 1). This showed that experts had already participated in many training courses, but their impact on real needs had been limited. On this basis, BlackSea4Fish focused on offering one-to-one training to selected scientists from the region by a well-known expert on stock assessment and stock assessment models. These scientists could then pass on their experience to colleagues in their home country in their own language.

In this context, a training session was organized in June 2019 for one Ukrainian expert to practice the SS3 model with Black Sea turbot data, at the Marine Research Institute of Swedish University of Agricultural Sciences, Department of Aquatic Resources. Another training session on the SAM stock assessment model was arranged during the same period for a Turkish scientist at Wageningen Marine Research. A consultation meeting was then organized by the General Directorate of Agricultural Research and Policy of Turkey, and facilitated by BlackSea4Fish, to transfer the experience to eight Turkish Ministry staff involved in fisheries. On that same occasion, a supplementary session on basic population dynamics and fundamentals of stock assessment models was organized.

OUTREACH AND DISSEMINATION

The BlackSea4Fish project, its goals and role within the GFCM were presented in the roundtable on management and sustainable utilization of marine resources held at the Global Fishery Forum and Seafood Expo 2018 (Russian Federation, September 2018), as well as in the Ministerial Conference on a Common Maritime Agenda for the Black Sea (Romania, May 2019).

To support ongoing efforts on small-scale and recreational fisheries in the context of the GFCM mid-term strategy, BlackSea4Fish helped Black Sea experts attend and contribute to the Working Group on Small-Scale Fisheries (Montenegro, March 2019). Similarly, the support of BlackSea4Fish facilitated the participation of experts from the Black Sea region to the workshop on 'Advancing social development for the future of small-scale fisheries in the Mediterranean and the Black Sea' (Morocco, June 2019).

Mr Konstantin Petrov, Ms Yoana Georgieva and Mr Ali Cemal Gücü at the Black Sea Unit

OTHER DEVELOPMENTS

INCREASED FOCUS ON SMALL-SCALE FISHERIES (OUTPUT 2)

A comprehensive socio-economic survey, including on small-scale fisheries, is underway in select Black Sea countries. To this end, data collection was carried out in Ukraine at the end of 2018, while work is ongoing to launch the survey in Turkey.

DISCARDS AND BYCATCH OF VULNERABLE SPECIES BETTER MONITORED (OUTPUT 4)

Data collection under the discards monitoring programme is being implemented in Turkey and Ukraine.

Support is expected to be provided in the context of the ACCOBAMS project on the implementation of cetacean monitoring indicators in the Black Sea.

THE TEAM

At the Black Sea Unit, under the leadership of the BlackSea4Fish project coordinator Mr Ali Cemal Gücü, Ms Yoana Georgieva and Mr Konstantin Petrov provided, respectively, expert support in technical matters linked to fisheries and expert advice in technical cooperation matters. One intern, Ms Saba Baskir, was recruited to assist in the overall implementation of the BlackSea4Fish workplan. The BSU also benefits from ad-hoc support from colleagues of the BSU host, the Executive Agency for Fisheries and Aquaculture, and it is expected to grow gradually.

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Food and Agriculture Organization of the United Nations