



**GENERAL FISHERIES COMMISSION FOR
THE MEDITERRANEAN
COMMISSION GÉNÉRALE DES PÊCHES
POUR LA MÉDITERRANÉE**



Working Group on the Black Sea (WGBS)

**Ad-hoc Meeting of the Working Group on the Black Sea on Turbot
Fisheries**

Constanta, Romania, 13-14 November 2014

EXECUTIVE SUMMARY

The ad-hoc meeting of the Working Group on the Black Sea on turbot fisheries was held at the “Grigore Antipa” National Institute for Marine Research Development, Constanta, Romania, on 13 and 14 November 2014. The meeting revised the existing GFCM recommendations and guidelines applicable to the turbot fisheries in the Black Sea, reviewed the existing management measures in the various Black Sea riparian states and provided advice on the management of the fisheries, for consideration by the GFCM Working Group on the Black Sea and the thirty-ninth session of the GFCM. The meeting concluded that measures which have the potential to facilitate combatting IUU fishing for turbot should be a priority in any management plan and to this end, the meeting outlined a number of key elements for the reduction of IUU fishing as well as a number of priority items needed to improve the management of the fishery.

OPENING OF THE MEETING

1. The ad-hoc meeting of the Working Group on the Black Sea on turbot fisheries was held at the “Grigore Antipa” National Institute for Marine Research Development, Constanta, Romania, on 13 and 14 November 2014. The meeting was attended by 28 fisheries experts from the Black Sea riparian States (Bulgaria, Georgia, Romania, Turkey and Ukraine), in addition to representatives of the European Union and the GFCM Secretariat. The full list of participants is provided in Appendix B of this report.

2. Mr Simion Nicolaev, coordinator of the Working Group on the Black Sea (WGBS) and chair of the meeting, welcomed the participants and recalled the purpose of the meeting: to prepare a draft advice on several issues related to the management of turbot in the Black Sea.

3. Mr Miguel Bernal, GFCM Fishery Resources Officer, summarized the items for discussion on managing turbot, as prepared by the fourth meeting of the WGBS and the thirty-eighth session of the Commission. Based on these items, participants agreed that the meeting would focus on achieving the following objectives:

- Agree, and where necessary, provide comments on the draft advice on Black Sea turbot populations as prepared by the second meeting of the Subregional Group on Stock Assessment for the Black Sea (SGSABS) (Constanta, Romania, 10–12 November 2014);
- Review and evaluate existing management measures related to Black Sea turbot fisheries at the country level;
- Discuss priority actions to combat IUU fishing as it pertains to turbot fisheries, and in line with the existing roadmap approved by the thirty-sixth session of the Commission;
- Identify GFCM-level potential management measures and scientific priorities to submit initially to the WGBS and ultimately to the Commission.

CONTEXT FOR THE MANAGEMENT OF TURBOT IN THE BLACK SEA

4. The GFCM Secretariat outlined the provisions of the existing recommendations and guidelines relevant to the management of turbot, including: i) the GFCM guidelines on management plans, fishing capacity and precautionary measures; and ii) Recommendation GFCM/37/2013/2 on the establishment of a set of minimum standards for bottom-set gillnet fisheries for turbot and conservation of cetaceans in the Black Sea. In addition, the scientific advice on turbot fisheries in the Black Sea presented by the Scientific Advisory Committee (SAC) at its sixteenth session, including the adopted technical elements for the management of turbot, as well as the conclusions of the second meeting of the SGSABS were presented. The Secretariat highlighted that the status of turbot populations was consistently deemed to be ‘overexploited’ and ‘in overexploitation’ in previous years and that therefore corrective action needed to be taken. Furthermore, it was emphasized that countries had already agreed on a series of management measures and on a framework which would form the basis of the development of a management plan for this fishery. Participants were reminded that this meeting presented an opportunity to further elaborate on this management plan, so as to simultaneously respond to the mandate granted by the thirty-eighth session of the Commission.

5. Participants accepted the assessment conducted by the SGSABS and agreed that the status of turbot was concerning. In addition, they highlighted the significant impacts of IUU fishing on this fishery and indicated that this issue alone could explain a great deal of the currently adverse status of turbot populations. As such, participants felt that IUU fishing should be a key priority to be addressed in any turbot fishery management plan.

ASSESSMENT OF THE DIFFERENT MANAGEMENT MEASURES AVAILABLE FOR THE MANAGEMENT OF BLACK SEA TURBOT

6. The GFCM Secretariat recapped the existing management measures for turbot fisheries as reported by the various Black Sea riparian States during the previous meetings of the WGBS, the SGSABS and dedicated ad-hoc meetings of the Framework Programme (see www.gfcmonline.org for a list of reports on the matter). This presentation highlighted the general trend of harmonization and compliance with Recommendation GFCM/37/2013/2 which is in force, and the restrictions shared by all countries with regards to the spatial and temporal dimensions of fishing, as well as effort.

7. Participants revised the summary table of management measures prepared during previous meetings and elaborated on participatory restrictions. An updated list of management measures implemented by all Black Sea riparian states (except the Russian Federation) that address the main stocks in the area in question is included in Appendix D of this report.

PREPARATION OF THE ADVICE ON BLACK SEA TURBOT MANAGEMENT MEASURES TO BE PROVIDED TO THE WGBS

8. Upon revision, participants agreed on the advice pertaining to the status of Black Sea turbot populations as was prepared by the SGSABS. This advice is included in Appendix C of this report. With regards to the items for discussion on managing turbot prepared by the thirty-eighth session of the Commission, participants agreed that the first priority of a turbot management plan should be to reduce IUU fishing. In addition, the turbot management plan should closely monitor the progress in implementation of existing management measures - together with those proposed to reduce IUU fishing - to ensure that they allow the populations to recover.

9. With a view to prioritizing the reduction of IUU fishing, participants discussed the requirements for licensing, the potential of installing a monitoring, control and surveillance (MCS) system and other potential measures to combat IUU fishing in the Black Sea turbot fisheries. This discussion generated a number of important points for the consideration of the WGBS and the Commission; these are included in appendices C and D of this report.

GENERAL CONCLUSIONS AND RECOMMENDATIONS

10. On the basis of the discussions held and with the objective to ensure long term sustainability and maximum sustainable yields of the Black Sea turbot fisheries, the ad-hoc meeting of the Working Group on the Black Sea for turbot fisheries agreed upon the following:

- On the basis of the conclusions of the sixteenth session of the SAC (March 2014) and the updated draft advice provided by the SGSABS (November 2014), in their current mode of operation, the Black Sea turbot fisheries are not sustainable and corrective measures need to be applied at the Black Sea level.
- A GFCM management plan should be implemented for the turbot fisheries, with the following general objectives, consistent with the GFCM guidelines for management plans and the elements for management of Black Sea turbot fisheries adopted during the sixteenth session of the SAC, i.e.:
 - To counteract and/or to prevent overfishing (both direct and indirect e.g., bycatch) with a view to ensuring the sustainability and economic viability of fisheries;
 - To restore, to the greatest extent possible, the size of Black Sea turbot stocks to levels which, at the very least, can produce the maximum sustainable yield;

- To maintain the risk of stocks of the associated species falling outside safe biological limits at a low level;
 - To reduce the extent of IUU fishing of turbot;
 - To ensure protection of biodiversity in order to avoid undermining the structure and function of the ecosystem.
- Reduction of IUU fishing, as well as its impact on turbot and associated species, is the most urgent operational objective to be implemented to improve the status of this fishery.
 - Development of a proposal with a number of actions that should be taken in order to reduce IUU fishing in Black Sea turbot fisheries (this is included in Appendix E of this report). Additionally, a number of other items were proposed, which included various scientific priorities, the potential of carrying out socio-economic analyses and additional measures to reduce mortality of turbot and associated species (these additional proposed items are provided in Appendix F of this report).
 - The effectiveness of the measures to achieve sustainability of turbot fisheries (included in Appendix E of this report) should be closely monitored. Where the positive effects of these measures are deemed to be insufficient, and the stocks continue to be assessed as outside of biological safe limits by a given temporal target, additional and/or alternative measures should be implemented, without delay, in accordance with the advice provided by the SAC. Additional/alternative measures should ensure a reduction of fishing effort. Therefore in addition to reducing IUU fishing, additional measures to achieve the reduction of fishing effort could include extending closing seasons or areas, reducing the number of days at sea or reducing the number of licenses in operation for the turbot fishery.
 - The conclusions of this meeting would be sent to the WGBS for discussion and endorsement. The meeting considered that the presence of representatives of the competent national authorities would be important for the discussion and endorsement.

ADOPTION OF THE REPORT

11. The meeting formally adopted the conclusions, recommendations and appendices on Friday 14 November 2014. The full report was adopted by e-mail on 24 January 2015.

Agenda

- 1. Opening and arrangement of the meeting**
- 2. Introduction of the context for the management of turbot in the Black Sea**
- 3. Assessment of the different management measures available for the management of Black Sea turbot**
- 4. Preparation of the advice on Black Sea turbot management measures to be provided to the WGBS, including in light of previous advice by SAC at its sixteenth session**
- 5. Adoption of conclusions and recommendations**
- 6. Closure of the meeting**

List of participants

BULGARIA

Sergey KOSTADINOV
 Secretary General
 National Agency of Fisheries and Aquaculture
 (NAFA)
 17, Hristo Botev Blv
 1606 Sofia
 E-mail: sergey.kostadinov@iara.government.bg

Dimitar VALKOV
 Directorate General Fisheries and Maritime
 Affairs
 National Agency of Fisheries and Aquaculture
 (NAFA)
 17, Hristo Botev Blv
 1606 Sofia
 Tel.: +35928051676
 E-mail: dimitar.valkov@iara.government.bg

Marina PANAYOTOVA
 Institute of Oceanology – BAS
 "Parvi May"40 Str., 9000
 P.O. Box 152
 Varna
 Tel.: +359 52370486
 E-mail: mpanayotova@io-bas.bg

Violin RAYKOV
 Institute of Oceanology – BAS
 "Parvi May"40 Str., 9000
 P.O. Box 152
 Varna
 Tel.: +359 887 958 939
 E-mail: vio_raykov@abv.bg

Maria YANKOVA
 Institute of Oceanology – BAS
 "Parvi May"40 Str., 9000
 P.O. Box 152
 Varna
 E-mail: maria_y@abv.bg

GEORGIA

George KOMAKHIDZE
 Head
 Fisheries and Black Sea
 Monitoring Department
 National Environmental Agency
 Tbilisi
 E-mail: g.komakhidze@gmail.com

ROMANIA

Simion NICOLAEV
 Director
 National Institute for Marine Research and
 Development "Grigore Antipa"
 Blv. Mamaia 300
 900581 Constanta
 Tel.: +40 241 543288
 Fax: +40 241 831274
 E-mail: nicolaev@alpha.rmri.ro

Constantin STROIE
 NAFA Romania
 2 Transilvaniei Street, Sector 1
 Bucharest
 Tel.: 0374.466.140 , 0374.466.139
 Fax: 0374.466.138
 E-mail: constantin.stroie@anpa.ro

Liviu Marius NICOLAE
 Director
 Marine Directorate
 NAFA Romania
 52 Tudor Vladimirescu Street
 Constanta
 Tel./Fax: 0374.466.136
 E-mail: anpadobrogea_ct@anpa.ro

Marilena BIRSAN
 Fishery Counsellor
 Marine Directorate
 NAFA Romania
 52 Tudor Vladimirescu Street, Constanta
 Tel./Fax: 0374.466.136
 E-mail: anpadobrogea_ct@anpa.ro

Dorin SERSTIUC
 Fishery Counsellor
 Marine Directorate
 NAFA Romania
 52 Tudor Vladimirescu Street
 Constanta
 Tel./Fax: 0374.466.136
 E-mail: anpadobrogea_ct@anpa.ro

Marian CHIRIAC
 Director
 Inland Waters Inspection
 NAFA Romania
 2 Transilvaniei Street, Sector 1
 Bucharest
 Tel.: 0374.466.140 , 0374.466.139
 Fax: 0374.466.138
 E-mail: anpa@anpa.ro

Eugen ANTON
 National Institute for Marine Research and
 Development "Grigore Antipa"
 Blv. Mamaia 300
 900581 Constanta

Madalina GALATCHI
 Research Assistant
 National Institute for Marine Research and
 Development "Grigore Antipa"
 Blv. Mamaia 300
 900581 Constanta
 E-mail: madalina.galatchi@gmail.com

Valodia MAXIMOV
 National Institute for Marine Research and
 Development "Grigore Antipa"
 Blv. Mamaia 300
 900581 Constanta
 E-mail: vmaximov@alpha.rmri.ro

Magda NENCIU
 Technology Transfer and Dissemination
 Department NIRDEP
 National Institute for Marine Research and
 Development "Grigore Antipa"
 Blv. Mamaia 300
 900581 Constanta
 E-mail: mnenciu@alpha.rmri.ro

Gheorghe RADU
 Senior Fisheries Scientist
 National Institute for Marine Research and
 Development "Grigore Antipa"
 Blv. Mamaia 300
 900581 Constanta
 E-mail: gpr@alpha.rmri.ro George TIGANOV
 Research Assistant
 National Institute for Marine Research and
 Development "Grigore Antipa"
 Blv. Mamaia 300
 900581 Constanta
 E-mail: gtiganov@alpha.rmri.ro

TURKEY

Murat DAĞTEKİN
 Head
 Agricultural Economy Department
 Central Fisheries Research Institute
 Vali Adil Yazar Cad., 14 Kaşüstü, Yomra
 Trabzon
 Tel.: +90 462 341 10 53
 Fax: +90 462 341 11 52
 E-mail: muratdagtekin998@gmail.com

Esra Fatma DENIZCI
 Fisheries Engineer
 General Directorate of Fisheries and
 Aquaculture
 Ministry of Food, Agriculture and Livestock
 Eskişehir Yolu 9.km Lodumlu Çankaya
 E-mail: esrafatma.denizci@tarim.gov.tr

Ali Cemal GÜCÜ
 Associate Professor
 Middle East Technical University
 Institute of Marine Science
 E-mail: gucu@ims.metu.edu.tr

İlkay ÖZCAN AKPINAR
 Aquaculture Engineer
 Central Fisheries Research Institute
 Vali Adil Yazar Cad., 14 Kaşüstü, Yomra
 Trabzon
 Tel.: +90 462 341 10 53
 Fax: +90 462 341 11 52
 E-mail: iakpinar@sumae.gov.tr

UKRAINE

Oleksandr CHASHCHYN
 Leading scientist

Odessa Center
Research Institute of Marine Fisheries and
Oceanography (YugNIRO)
132 Mechnikova str.
65007 Odessa
E-mail: alchashchin@yandex.ru

Kostiantyn DEMIANENKO
Deputy Director
Research Institute of the Azov Sea
State Agency of Fisheries of Ukraine
Tel.: +380 6153 36604
Mobile: +380 50 3227888
E-mail: s_erinaco@i.ua

Margherita SESSA
Consultant
Food and Agriculture Organization of the
United Nations (FAO)
Fisheries and Aquaculture Department
Via Vittoria Colonna 1
00193 Rome, Italy
Tel.: +39 06 57052827
E-mail: margherita.sessa@fao.org

EUROPEAN UNION

Anna MANOUSSOPOULOU
European Commission
200 rue de la Loi, 1049
Brussels
Belgium
E-mail: anna.manoussopoulou@ec.europa.eu

GFCM SECRETARIAT

Miguel BERNAL
Fisheries Resources Officer
Food and Agriculture Organization of the
United Nations (FAO)
Fisheries and Aquaculture Department
Palazzo Blumenstihl,
Via Vittoria Colonna, 1
00193, Rome, Italy
Tel.: +39 06 57056537
E-mail: miguel.bernal@fao.org

Constantina KARLOU-RIGA
Expert
Tel: +306945874145
E-mail: constakarlou@gmail.com

Stock assessment for Black Sea turbot prepared by the SGSABS (10-12 November 2014)

GSA	Species	Data type	Time series	Methodology used	Stock status	Fcurr /Flim	Bcurr /Blim	Advice	SGSABS Comments
29	Turbot <i>(Psetta maxima)</i>	Total landings; catch-at-age; weight-at-age; natural mortality; maturity ogive; tuning indices	1950-2013	SAM	Overexploited and in overexploitation	5.12		Implement a recovery plan.	<p>The level of IUU fishing is considered high. The current estimate of IUU fishing used in assessments is only considered to be an approximation that may not be representative of the real level of IUU fishing. Further analyses of natural mortality are desirable.</p> <p>The model used is considered robust to assumptions (including IUU fishing)</p>

Management measures per country and target species in the Black Sea.

Country	Target species	Management measures
BULGARIA General measures: <ul style="list-style-type: none"> • IUU fishing using bottom trawler for turbot • MPAs in 16 sites (NATURA 2000) • Fleet capacity frozen based on EU Reg. 31/12/2002 • Participatory restrictions in place: plan for adjusting fishing effort 	Turbot (<i>Psetta maxima</i>)	<ul style="list-style-type: none"> • Minimum landing size 45 cm (TL) • Gillnet mesh size 400 mm (stretched) • TACs defined annually (EC) • Closed season 15 Apr-15 Jun (possibility of shifting and extension) • Fishing is prohibited within 1 mile zone around ports and estuaries • Bottom trawl and dredges forbidden • By-catch in other fishing gears (beam trawler, mid-water trawlers) regulated
	Whiting (<i>Merlangius merlangus</i>)	<ul style="list-style-type: none"> • Minimum landing size 8 cm (TL) By-catch for mid-water trawlers is totally discarded
	Red mullet (<i>Mullus barbatus</i>)	<ul style="list-style-type: none"> • Minimum landing size 8 cm (TL)
	Anchovy Azov (<i>Engraulis encrasicolus maeticus</i>)	
	Anchovy Black Sea (<i>Engraulis encrasicolus ponticus</i>)	<ul style="list-style-type: none"> • Minimum landing size 8 cm (TL)
	Dogfish (<i>Squalus acanthias</i>)	<ul style="list-style-type: none"> • Minimum landing size 90 cm (TL)
	Sprat (<i>Sprattus sprattus</i>)	<ul style="list-style-type: none"> • Minimum landing size 7 cm (TL) • Regulated by quota at EU level
	Bonito (<i>Sarda sarda</i>)	<ul style="list-style-type: none"> • Minimum landing size 28 cm (TL)
	Rapa whelk (<i>Rapana venosa</i>)	<ul style="list-style-type: none"> • Closed areas (5) for beam trawler (Not yet enforced -in process)
Horse mackerel (<i>Trachurus mediterraneus ponticus</i>)	<ul style="list-style-type: none"> • Minimum landing size 12 cm (TL) 	

Country	Target species	Management measures
ROMANIA General measures: <ul style="list-style-type: none"> Fishing prohibited in waters less than 20 m depth as well as estuaries in Danube Delta Marine Reserve, Vama Veche-2 Mai Reservation 	Turbot (<i>Psetta maxima</i>)	<ul style="list-style-type: none"> Minimum landing size 45 cm (TL) Gillnet mesh size 400 mm (stretched) TACs defined annually (EC) Closed season 15 Apr- 15 Jun Bottom trawl and dredges forbidden Monofilament gill net forbidden Participatory restrictions (licenses and special authorization targeting turbot) When not compliant with TAC and/or national and other laws, no authorization to fish turbot for the following year (short or long term)
	Whiting (<i>Merlangius merlangus</i>)	
	Red mullet (<i>Mullus barbatus</i>)	
	Anchovy Azov (<i>Engraulis encrasicolus maeticus</i>)	
	Anchovy Black Sea (<i>Engraulis encrasicolus ponticus</i>)	<ul style="list-style-type: none"> Landing size 7 cm (TL)
	Dogfish (<i>Squalus acanthias</i>)	<ul style="list-style-type: none"> Gillnet mesh size a = 100 mm Fishing prohibited from 15 Mar-30 Apr Catching spawning females prohibited throughout the year Minimum landing size 120 cm (TL)
	Sprat (<i>Sprattus sprattus</i>)	<ul style="list-style-type: none"> Minimum landing size 7 cm (TL)
	Bonito (<i>Sarda sarda</i>)	
	Rapa whelk (<i>Rapana venosa</i>)	
TURKEY General measures*: <ul style="list-style-type: none"> Closed areas for trawls and purse seines Closed seasons for bottom trawls (15 Apr-15 Sep) 	Turbot (<i>Psetta maxima</i>)	<ul style="list-style-type: none"> Minimum landing size 45 cm (TL) Minimum mesh size gillnet 400 mm (stretched) Closed season 15 Apr-15 Jun for gillnets Long lines and trammel nets forbidden Turbot stock enhancement project in place
	Whiting (<i>Merlangius merlangus</i>)	<ul style="list-style-type: none"> Minimum landing size 13 cm
	Red mullet (<i>Mullus barbatus</i>)	<ul style="list-style-type: none"> Minimum landing size 13 cm

Country	Target species	Management measures
<ul style="list-style-type: none"> • Mesh size in the trawler codend not less than 40 mm • Trawlers do not operate within 3 nautical miles from the coast • Monofilament nets are prohibited • No new licenses are issued • Project in studying the impact of the reduction of the fishing vessels up to end of 2014 (possibility of extension) <p>*Fisheries law No 1380</p> <ul style="list-style-type: none"> ○ Fisheries regulation ○ Notification regulating commercial fishing 	Anchovy Azov (<i>Engraulis encrasicolus maeticus</i>)	
	Anchovy Black Sea (<i>Engraulis encrasicolus ponticus</i>)	<ul style="list-style-type: none"> • Closed season for purse seiners 15 Apr - 31 Aug • Purse seines prohibited in waters less than 24 m in depth • Minimum landing size 9 cm • Regulated number of licenses for purse seines • Fishing operation in Marmara and Black Sea is allowed between 16:00-08:00 • Closed areas in the Black Sea for trawls and purse seines
	Dogfish (<i>Squalus acanthias</i>)	
	Sprat (<i>Sprattus sprattus</i>)	
	Bonito (<i>Sarda sarda</i>)	<ul style="list-style-type: none"> • Minimum landing size 25 cm • Closed season 1st April-31 August
	Rapa whelk (<i>Rapana venosa</i>)	
	Horse mackerel (<i>Trachurus mediterraneus ponticus</i>)	<ul style="list-style-type: none"> • Minimum landing size 13 cm
UKRAINE General measures: <ul style="list-style-type: none"> • Closed areas 	Turbot (<i>Psetta maxima</i>)	<ul style="list-style-type: none"> • Minimum landing size 35 cm (SL) • Minimum mesh size gillnet 180 mm from knot-to-knot • Closed seasons (1 Nov-31 Jan; 1 -31 May - for the EEZ and 15 days for the territorial waters within the month of May) • Undersized fish as by-catch is regulated • TACs, divided also with by-catchers • Limitations in number of gears as a total as well as minimum number of gears per vessel • Bottom trawling banned • Restriction on gill net dimensions : length 100m, number of meshes in height 8 units
	Whiting (<i>Merlangius merlangus</i>)	<ul style="list-style-type: none"> • Minimum landing size 12 cm (SL)

Country	Target species	Management measures
		<ul style="list-style-type: none"> • Minimum mesh size - 12 mm from knot-to-knot • Undersized fish as by-catch is regulated • Bottom trawling banned
	Red mullet (<i>Mullus barbatus</i>)	<ul style="list-style-type: none"> • Regulated through TACs • Minimum landing size 8.5 cm (SL) • Minimum mesh size 10 mm from knot-to-knot • Undersized fish as by-catch is regulated • Bottom trawling banned
	Anchovy Azov (<i>Engraulis encrasicolus maeticus</i>)	<ul style="list-style-type: none"> • Closed seasons • Minimum landing size 6.5 cm (SL) • Regulated through TACs • Undersized fish as by-catch is regulated Minimum mesh size 6 mm from knot-to-knot
	Anchovy Black Sea (<i>Engraulis encrasicolus ponticus</i>)	<ul style="list-style-type: none"> • Minimum mesh size 6 mm from knot-to-knot
	Dogfish (<i>Squalus acanthias</i>)	<ul style="list-style-type: none"> • Regulated through TACs • Minimum landing size 85 cm (SL) • Minimum mesh size 100-120 mm from knot-to-knot • By-catch while trawling is restricted (not more than 200 kg per each operation and not more than 50% in the case of higher catches) • Bottom trawling banned
	Sprat (<i>Sprattus sprattus</i>)	<ul style="list-style-type: none"> • Vessels limitation in winter time (not more than 20 vessels from 1 Nov- 31 March, while displacement of the vessel is limited to 1200 tons in this period) • Regulated through TACs • Minimum landing size 6 cm (SL) • Minimum mesh size 6 mm from knot-to-knot • Undersized fish as by-catch is regulated • Bottom trawling banned
	Bonito (<i>Sarda sarda</i>)	<ul style="list-style-type: none"> • <i>No specific measures</i>
	Rapa whelk (<i>Rapana venosa</i>)	<ul style="list-style-type: none"> • Restrictions on the design of dredges

Country	Target species	Management measures
		<ul style="list-style-type: none"> • Closed areas and closed seasons for dredging only
	Horse mackerel (<i>Trachurus mediterraneus ponticus</i>)	<ul style="list-style-type: none"> • Closed seasons and closed areas • Minimum landing size 10 cm (SL) • Minimum mesh size 12 mm from knot-to-knot • Undersized fish as by-catch is regulated
<p>GEORGIA</p> <p>General measures:</p> <ul style="list-style-type: none"> ○ Fishing for purse seines and trawls is prohibited within 300 m from the shore ○ Closed season from 1 May to 1 July ○ Restricted areas (MPAs) <p>Comments: no catch records for artisanal fisheries TACs estimated by NGOs, which is directed to the Government</p>	Turbot (<i>Psetta maxima</i>)	<ul style="list-style-type: none"> • Minimum landing size 35 cm (SL) • Minimum mesh size gillnet 120 mm from knot-to-knot • TACs for trawls and seines (estimated by NGOs)
	Whiting (<i>Merlangius merlangus</i>)	<ul style="list-style-type: none"> • Regulated for trawls and seines through TACs
	Red mullet (<i>Mullus barbatus</i>)	<ul style="list-style-type: none"> • Regulated for trawls and seines through TACs
	Anchovy Azov (<i>Engraulis encrasicolus maeticus</i>)	
	Anchovy Black Sea (<i>Engraulis encrasicolus ponticus</i>)	<ul style="list-style-type: none"> • Minimum landing size 70 mm • Minimum mesh size 6.5 mm from knot-to-knot • Regulated for trawls and seines through TACs
	Dogfish (<i>Squalus acanthias</i>)	<ul style="list-style-type: none"> • Regulated for trawls and seines through TACs
	Sprat (<i>Sprattus sprattus</i>)	<ul style="list-style-type: none"> • Regulated for trawls and seines through TACs
	Bonito (<i>Sarda sarda</i>)	<ul style="list-style-type: none"> • Regulated for trawls and seines through TACs
	Rapa whelk (<i>Rapana venosa</i>)	<ul style="list-style-type: none"> • Regulated for trawls and purse seines through TACs
	Horse mackerel (<i>Trachurus mediterraneus ponticus</i>)	<ul style="list-style-type: none"> • Regulated for trawls and seines through TACS

Specific items for the reduction of IUU fishing in Black Sea turbot fisheries

1. The dimension of turbot bottom set gillnets allowed to operate in the fishery should be compliant with the following rules:
 - Dimensions of the gillnet (maximum length and maximum height) should be specified. Countries should provide the dimensions currently used in their fisheries to the WGBS which should analyze this information and propose the maximum dimensions.
 - Minimum mesh size of 400 mm (compliant with Recommendation GFCM/37/2013/2). The Group recognized that the current mesh size used in Ukraine and Georgia is slightly different, while the current mesh size used in the Russian Federation is larger than that which is specified in the Recommendation.
 - Monofilament or twine diameter shall not exceed 0.5 mm.
2. All gillnets operating in the fishery should be clearly identified. A database of the codifications used by all riparian states should be created.
3. Where possible, a list of designated landing sites should be created.
4. An “authorized vessels” list should be created, containing all vessels that are authorized to catch turbot in Black Sea waters. In order to create this list the following steps should be carried out:
 - Only those vessels that use gillnets that comply with the requisites described in point 1 should be allowed to operate in the fishery;
 - Given that some countries are adapting their current license system, the Group recommended that this list should be ready as soon as possible. The list of vessels should remain confidential;
 - The list should contain a detailed description of each vessel, following the same criteria being used in authorized vessel lists for other management plans and for Fishery Restricted Areas.
5. Authorized vessels should comply with the minimum landing size obligation established in Recommendation GFCM/37/2013/2. They should also provide a detailed report of their fishing activities, including as minimum requirements: operating days, operating area and total catch of turbot. This information should be provided at least quarterly.
6. Establishment of a database of protected areas and closed seasons, with detailed information on regulations in place, in all riparian states, based on information provided by all countries. Where possible, neighbouring countries should agree on common closing seasons to facilitate inspections and avoid potential market competition. A minimum target on the percentage of fishing grounds to be covered by protected measures should be identified.
7. National monitoring, control and surveillance (MCS) procedures should be clearly identified. In order to do so, the following steps should be carried out:
 - Countries should prepare an annual control plan, which includes specific objectives to control turbot fisheries;
 - The MCS plan should include monitoring and control of market places.
 - Countries should assess the performance of their MCS system in relation to their plan;
 - National inspectors should receive all information on authorized vessels, fishing gears and regulations as well as adequate training to specifically achieve the objectives of the MCS plan related to turbot.

Priorities for the improvement of the management of Black Sea turbot populations

- Scientific priorities

Scientific priorities should be in line with those prepared by the WGBS and in the working plan of the advisory group on fisheries of the Black Sea Commission (BSC) for the implementation of the Memorandum of Understanding (MoU) between the BSC and the GFCM.

- Socioeconomic analysis

Countries should collect socio-economic information related to turbot fisheries (e.g., catch value, variable and fixed costs, employment, etc.) and perform economic-efficiency and market analyses, as well as evaluate potential socio-economic impacts of different future scenarios. Countries should also carry out awareness-raising campaigns for all stakeholders regarding the importance of preserving this fishery and combatting IUU fishing.

- Other priorities

Consideration and performance evaluation of the use of restocking from aquaculture to improve stock recovery rates.

Encouraging the recovery of abandoned fishing gear (ghost fishing) which is considered beneficial to reduce fish mortality

Promoting the improvement of gear-selectivity towards optimum fish size selection patterns and reducing bycatch and discard rates of other species through the implementation of case studies.

Promoting the reduction of turbot bycatch in other fisheries such as beam and trawl-based fisheries.