

BLACK SEA 4 FISH

PRESENTATION SERIES 1 (2021)

"Size selectivity of towed fishing gears"

by

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07th December 2021

Questions and answers session

1. Paolo Carpentieri – GFCM

(1) What is the mesh size most commonly used in the Turkish trawlers? 40 mm square? 50 mm diamond? Others?

Gökhan Gökçe, Turkey: 40 mm diamond for the Black Sea and 44mm diamond for the Mediterranean.

Paolo Carpentieri: I asked because there is a GFCM recommendation from 2009 that obliges the countries to use 50 mm diamond or 40 mm square mesh size. In addition, the EU countries operating in the Mediterranean and the Black Sea (Italy, France, Spain, ect.) are obliged to use the same mesh size. In Turkey, the most common mesh size is 44 mm diamond. So, why Turkey is not applying the mentioned recommendation?

Huseyin Ozbilgin, BS4F coordinator: The rules around the Turkish Seas for demersal trawlers are minimum 40 mm diamond in the Black Sea and 44 mm in the Aegean and the Mediterranean coasts. Why GFCM recommendation was not legalized in Turkey, we do not know. We know there was a recommendation, that is why we studied this matter and provide the results. If you use the GFCM recommendation, the commercial loss could be quite significant. This could be studied and modeled, further. It is known that the recommended rules are not always followed very strictly. What we need to do is to study this issue, not just for the purpose of the publications. We have made a mistake of not cooperating with the industry from the very beginning. We did not seek the support of the relevant NGOs. So we were just researching on our own in some universities and as we have good connections with the fishermen, we were going to the fishing vessels or we were going to the research vessels which have fisherman on board. However, this was all - we did not go further. Therefore, although we had all this results, none of them were applied. I think we need to change the approach in all of the GFCM areas, because as I say, for three fish that you are eating seven others are thrown away. We should keep this in mind every time we eat fish.

2. Cemre Balki, Turkey

(2) As we know climate changes has increased the sea surface temperature over the past 100 years. There is an oxygen limitation that could explain the shift from bigger to small sized fish due to the insufficient oxygen concentrations for their needs. For this situation, could you share your prediction on the future of trawl selectivity and their studies in the Eastern Mediterranean and Black Sea? What would happen in the future?

Huseyin Ozbilgin: I can guess the increased temperature would modify the behavior of fish but whether it would be a significant factor, it is a question mark. Therefore, this is something that needs to be taken into account. Before it comes to the selectivity issue, some other factors need to be investigated. In selectivity studies, other factors could be much more significant than the factors mentioned above. But in summary, I do not have a clear answer to this question.

Elizabetta Morello – GFCM

(3) I have a comment. You talked about the compensation of loss of changing mesh size. Is there an effort to change this narrative? I mean when I started school in terms of university what I was told that the idea would be to ensure that fishermen have stocks for the future, so their children will be able to fish. Maybe, rather than estimating the loss of changing the mesh size, what needs to be done is to investigate and estimate or project the long term of gain in term of a healthier population. Maybe in future it should be a change of the communication in terms of projecting the benefits rather than the immediate loss of a gain when changing the nets. It is more philosophical note but as scientists, we should start changing this kind of narrative and raising the awareness towards more possible gain or at least trying to see what the long-term effects would be in terms of possible healthier population of fish in the sea.

Huseyin Ozbilgin: I think studies of long-term projection of gain has been made under a few projects. I agree that the better communication is needed for long-term gain. That is easy to be model because we have all the information – growth parameters, selectivity, and population structure. What we do not know are the percentages of the escape/survival rates.

4. Gökhan Gökçe, Turkey

(4) Nowadays, Turkish bottom trawl fishermen are suffering from the level of commercial fish stocks and the low prices. I wonder what would happen if there is no trawls. What is your opinion on this?

Huseyin Ozbilgin: It depends on the markets. I think if there were more large-scale fishery the small-scale fishery would be lesser. We know that in principle, the gears used for small-scale fishery are much more selective and they target bigger fish. When you speak about the number of large scale in case of demersal trawlers, actually you are not speaking of huge number. In Turkish part of the Black Sea, there are about 100-150, roughly. In the case of Bulgarian, the bottom trawling is prohibited but it is known that it exists. So actually, you are not talking about thousands of vessel owners. The uncaught fish by the large-scale fisheries became available to the small scale ones. I think the simple answer to your question, at least for red mullet and whiting is that other methods exists to exploit these resources. When it comes to shrimp fishery or deep see fishery probably other methodology do not exist to fish them efficiently. Something on this matter should be told also from the managers site. When you ban something, you should be careful what the fishermen would do – they could use other methodology to harm the environment even more.

5. Elizabetta Morello – GFCM

(5) The results of the rapa whelk selectivity study are really interesting. It seems that there are big differences between the countries. Do you think this is maybe due to the fact that there are different stocks with different length structures in the Black Sea.

Huseyin Ozbilgin: There are two issues in the rapa whelk case. Probably the question is if these differences are natural or they are due to experimental procedures of the way these data were collected. In my opinion, the second possibility is very unlikely. The working methodology is simple; I think all of the researchers were sufficiently trained for this. The variation in the results is high. In the case of Bulgarian survey, there was almost no escaped specimens. In some of the hauls rapa whelk were covered by seaweeds. In this case, the size of rapa is increased. In some places, the epibionts on the shells were much more than in some other stations where they were very clean. There are so many other factors. For instance, in some places the gear was pulsing because of the waves and letting more juveniles or small specimens to go out of the gear. We quantified some of these factors and we could model it but we have not done this so far. We estimated some of the potential factors that could be modelled. There is available software for this issue. Selectivity also changes, with the existence of the other materials in the gear. Sometimes there are lots of sea weeds and empty shells masking the mesh opening. Sometimes catch is very clean and all the small specimens can get out of it.

6. Erdinc Gunes, Turkey

(6) I confirmed that in the Black Sea, Turkey applied 40 mm mesh size but we are planning to apply 44 mm diamond.

Huseyin Ozbilgin: Just to clarify, the intent is to change from 40 mm diamond to 44 mm diamond in the Black Sea

Erdinc Gunes: That is right! We contacted the department of Fishery control. They are planning to apply 44 mm diamond mesh size in the Black Sea in the near future.

7. Oğuzhan Demir, Turkey

(7) Do you have mucilage estimation for the fishery?

Huseyin Ozbilgin: The mucilage is a problem especially pronounced in the Marmara Sea. We have not done this kind of estimation but we now from the commercial practices that it blocks the meshes in a way they cannot tow and operate their gears, at all. It is expected the mucilage to fulfil any space that a fish could escape. There are not available results on this matter but the expectations are to decrease the selectivity significantly.