MAP SMALL PELAGICS ADRIATIC SEA

WG1- MEDAC

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Krstina Mišlov Jelavić

Introduction

* In 2017. we thought that have finished discussion on MAP for Adriatic small pelagics. But we are glad that we an opportunity to say important issues that still have not be discussed

* Reg. 1380/2013 brings us to an unpleasent situation with obligation of implementing the MSY.

* MSY theory implies that we can manage regrutation by managin biomass.

* After latest STECF document and relevant scientific articles we can conclued that this **biomass/recruitment relation does not exist.**

* The time has come for new paradigma.

Latest STECF document

* Management of these resources (small pelagics) should be based on the knowledge of **resource status NOW** not two years ago.

* Especially because the predictions ***should not*** be done for period longer than few years.

* Data that we have in the latest STECF doucment can be used for predictions of next two or three years, but not for for next ten years as STECF has given the prediction for (*stecf could made a prediciton for next 100.000 years maybe it would seem even more likely to happened).*

(STECF PLEN 17-01):

- „On previous occasions STECF (STECF 2016c) has discussed the problems of providing robust estimates of FMSY for sardine and anchovy stocks in GSAs 17 and 18 (Adriatic Sea). **Such estimates are sensitive to the assumptions made in the estimation procedure, especially with regard to the stock-recruitment relationship."**
- „The time-series of stock and recruitment data indicate that for sardine and anchovy in the Adriatic, **there is a strong unbounded linear relationship between spawning stock biomass (SSB) and recruitment (Fig. 2.7.1); and conversely, there is also a strong correlation between recruitment and the following SSB: high recruitment gives rise to a large stock in subsequent years, but when the recruitment declines, so does the stock. This pattern is also evident in the time series prior to the mid-1990s, which was a period of relatively lower fishing mortality compared to the current level (although the historical mortality level remains uncertain because of a possible underestimation of historical catch data).** This indicates that the subsequent decline in recruitment **may have been partly in response to environmental changes, and not only a result of declining SSB.** This is in line with a large number of published studies that indicate that **environmental conditions have a strong influence on recruitment success of small pelagic fish** species. In this situation**, it is difficult to resolve the issue of how dependent recruitment is on SSB and hence the form and the breakpoints of the stock-recruit relationship.**"

Uncertanities part 1

* Proposal of the MAP is established on the uncertanities which produce these kind of results (also STECF in 2017. indicated this issue:

Species	Reports	Blim (t)	Bpa (t)	Fmsy	SSB-2015 (t)	Fcur-2015
Sardines	SAC 2017 STECF 16-22 STECF 17-15/17-03	125317 223000 112922	250636 446000 156913	0.715 (0,08 -0,25) 0.44	183783 383080 173165	1.485 1.94 1.4
Anchovies	SAC STECF 16-22 STECF 17-15/17-03	45910 140000 20155	91872 196000 28007	0.554 (0,3 -0,5) 0.57	86595 214272 35739	0.99 1.27 1.42

Uncertanities part 2

* **Socioeconomical analysis of the measures proposed in the MAP does not exist.**
* Bioeconomical model analysis were done but with completly different sceanarios than MAP proposed.
* Used bioeconomical models have key deficiencies in the estimation in the size of the market and market sensitivity on the price changes (eur/kg). We are talking about global market not about local market (which was used int he analysis) . Estimations of effects on fleet segments, do not match with have fleet segments are divied regarding the markets they are selling their fish to...
* No social analysis were carried out, what effects of the proposed MAP will be on the local communities?!!
* **We can say that real and appropriate socioeconomical analysis were not carried out!!!!**

…

* For Tuna recovery plan is taken as a succesfull one, and when mentioned everybody recall that it was success thanks to quotas.

* But all the time it is hidden that not only quota was implemented

Also many other measures were implemented:

* Change of minimal conservation size (for ten times, form3-4 kg to 30 kg)
* Instead of 11 -12 months of fishing per year we have only one month of fishing season
* Reduction of fleet capacity
* **BCD** for each tuna
* Observers on board
* control
* Who can say which of these measures gave the result????!!!!

* *On the other hand I cant stop wondering how tuna could recover when according to the all available scientific data there is no food in the sea for tuna .*

RH implemented managment meaures

* From 2008. up to date temporal closure of small pelagic fisheries **(fleet in ports)** continously 20 to 40 days in spawning period of sardines.

* All vessels have an electronic logbook (which includes the registration of the fish size (pcs / kg) by species of sardines and anchovy and related fishing zone) and VMS.

* In 2014. reduction of lights used in the fishing operation.

* For the last three years, the Republic of Croatia gradually has been introducing more restrictive management measures than the recommended measures, which will result in 2018 with the more rigorous measures.

RH Management measures in 2018.

* National measure of **fishing closure** for all vessels targeting small pelagic fish, during sardine spawning period **(in December) of 10-30 days.**
  ***** Maximum 180 fishing days per year and 20 fishing days per month, or maximum 144 fishing days, targeting sardines and / or anchovies.
  *** Spatial closure of about 40% of territorial waters lasting 12 months per year.**

  *** Fishing closure during the spawning period of sardine, for the complete fleet authorised to catch small pelagic fish, in the period from 01.01. to 28.02.2018.** (In period from 15.02. until 28.02.2018. each vessel has a maximum of 5 fishing days.
* *** Fishing closure during the spawning period of anchovies, for the complete fleet authorised to catch small pelagic fish, in the period from 01.05.-31.05.201**8 Means the ban for all the relating fishing vessels 15 days in continuity, and maximum of 5 fishing days per vessel in the rest of the closure period.

RH– RESULTS ACHIVED

* **RESULTS OF OUR EXPERIMENT;** after problems with sector (**huge resistance**), with administration, during the implementation.

* **Since 2008. constant increase of total biomass and recruitment of sardines.**

CROATIAN SMALL PELAGICS CATCH			
	total catch (T)	reduction (T)	reduction (%)
2014.	71.055		
2015.	64.462	6.593	9,30%
2016.	62.484	8.571	12,10%
2017.	59.125	11.930	16,90%

* **NOW we have sector on our side , we have sector that understands why we needed to suffer in last years, they are witnessing results in the sea on the daily basis.**

RH– RESULTS ACHIVED

* The obtained measures from 2015-2017, compared to the catch in 2014 resulted in cumulative reduction of the catch of sardines and anchovies for -**27000 tons.**

* We assure you that the available quantities of sardines and anchovies were such that without these measures the cumulative catch would be higher for at least 30,000 tons and so the actual effect is higher than -55000 tons.

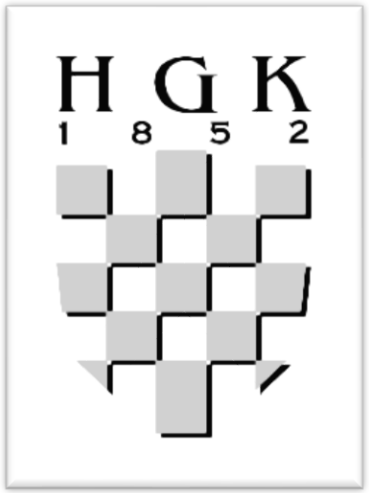
* **Fishing effort** and **fishing mortality** of **sardines** has been **reduced,** huge areas have been protected allowing improvement of growth and reproduction and collaborative atmosphere in the region has been established.

Our future

* Bearing in mind:
  * that managment measures from the GFCM reccomendation were supposed to be fully implemented in 2017.. 2017.is the year that we have no scientifitic data on stock status at the moment, we will have it in the 2019. (one more year of fishing will pass in the meantime).
  * that STECF has given to themselves 5 years in the proposed MAP for the revision of the implemented measures.
  * That „existing conditions" used in models do not exist since we have implemented different managment measures and existing status has completly changed
  * high uncertanities of the proposed plan and completly unadequat socioecnonomical analysis

we consider that a temporary plan should be provided (as a continuation of the GFCM measures with some possible modifications), the plan should last till 2022.

Thank you!



CROATIAN CHAMBER OF ECONOMY
Fishing affiliation