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# **Annual Report on the Slovenian Data Collection Programme for 2015**

under

Council Regulation (EC) 199/2008,  
Commission Regulation (EC) 665/2008  
and Commission Decision 2010/93/EU

Prepared by

Ministry of Agriculture, Forestry and Food and the  
Fisheries Research Institute of Slovenia

Ljubljana, May 2016; amended in November 2016

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## **I General framework**

Slovenian Annual Report for 2015 covers the Slovenian National Data Collection Programme for 2015.

The Slovenian programme of collection and management of data for 2015 is based on the Council Regulation (EC) No 199/2008, Commission Regulation (EC) No 665/2008 and Commission Decision (2008/949/EC).

In the amended NP for 2016, Slovenia requested for two exemptions from the Commission Decision 2010/93/EU; first is related to the continuation with the samplings of *Engraulis encrasicolus* and *Sardina pilchardus*. Although in last three years the average landing of named two species fell under 200 tonnes in average. Slovenia expressed willingness to continue with the samplings of it's two most important species. Slovenia wishes to keep the continuity in the data acquisition of these shared stocks that started in 2006 in order to be able to contribute to regional management scheme.

Second is related to the biological samplings for individual parameter measurements of age (reading of otholits) for MEDITS species *Merluccius merluccius* and *Mullus barbatus* and *Mullus surmuletus*. Landings of named species are less than 100 tonnes. Monitoring of these species would have substantial costs, while their share in quantity and value of catch is negligible and the cost of analysis would by far exceed the possibilities of cost-efficient sampling strategies.

We are still waiting for the reply from the Commission regarding our two proposed derogations.

## **II. National data collection organisation**

National data collection has hierarchical organisation. Ministry of Agriculture, Forestry and Food (MAFF) is an authority responsible for the implementation of the National Data Collection Programme. MAFF is responsible also for the communication between participating institutes and between European Commission and Slovenia. MAFF is coordinating work done by different participating institutes and is responsible also for reporting to the European Commission and other end users of the data collected under DCF.

### ***II.A National correspondent and participating institutes***

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#### **Participating institutes**

Ministry of Agriculture, Forestry and Food is an authority responsible for the implementation of the National Data Collection Programme. MAFF was responsible also for the implementation of the National Data Collection Programme in 2015, which was in 2015 conducted in close cooperation with Fisheries Research Institute of Slovenia, Inspectorate of the Republic of Slovenia for Agriculture, Forestry, Hunting and Fisheries, Statistical Office of the Republic of Slovenia and other private institutions.

MAFF is responsible also for the communication between participating institutes and between European Commission and Slovenia. MAFF is coordinating work done by different participating institutes and is responsible also for reporting to the European Commission and other end users of the data collected under DCF.

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Fisheries research Institute of Slovenia (FRIS) was partner in all of the modules of the NP 2015. The relation between the Ministry and the Fisheries Research Institute was in the form of contract. The role of FRIS in 2015 was also to collect biological and economic data according to contract.

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The role of the Inspectorate of the Republic of Slovenia for Agriculture, Forestry, Hunting and Fisheries in 2015 was in monitoring and controlling the activities of the fishermen at sea and in ports as well as in marketing of the fisheries products and appropriate follow-up in case of suspected infringements. The Inspectorate was playing also the key role in the crosschecking procedures.

**National DCF website** (ref. Commission Regulation 665/2008 article 8(2):  
[http://www.mkgp.gov.si/si/delovna\\_podrocja/ribistvo/zbiranje\\_podatkov/](http://www.mkgp.gov.si/si/delovna_podrocja/ribistvo/zbiranje_podatkov/)

**National coordination meeting in 2015:**

In 2015 we had one national coordination meeting. Participants were Bojan Marčeta, Tomaž Modic, Irena Likar and Edvard Avdič Mravlje from FRIS<sup>1</sup>), Enisa Lojović Hadžihasanović (SORS<sup>2</sup>), Marina Dobraš and Jernej Švab from MAFF<sup>3</sup>

Representatives from the Commission were also invited and the minutes of the meeting were sent to the Commission.

First of all National Coordinator for data collection had a welcome speech, followed by a review and approval of the agenda of the meeting.

Fisheries Research Institute of Slovenia had to perform the following activities in 2015 for the purpose of collecting fisheries data:

- Data collection for socio-economic and transversal variables,
- Data collection for biological variables,
- Surveys at sea,
- Collection of data on aquaculture,
- Collecting data on the processing industry and
- Participation in the Coordination meetings.

Representatives of the FRIS outlined activities in different modules for data collection A1, B1, B2, A2 (biological sampling of landings, monitoring of by-catch and discards, and monitoring of recreational fishing), A3 (surveys at sea - MEDITS and MEDIAS) and module C (assessment of the impact of the fisheries sector on the marine ecosystem).

FRIS representatives presented the progress of data collection. In the context of socio-economic and transversal variables there were no specifics. Biological sampling of the landings took place in the landing location of fishery products. They collected biological parameters for pilchard (*Sardina pilchardus*) and anchovy (*Engraulis encrasicolus*), which were caught by purse seiners. Because of the high number of weight measurements already done during the previous years FRIS is suggesting to perform in future only length measurements and to determine weight from the past measurements from the correlation table between length and weight. Numbers of realized samplings were lower than planned. This was primarily due to the seasonal activities of vessels (fishing activities took place only during the summer).

Sampling of discards was carried out by observers on board of fishing vessels. The main purpose of the sampling was to collect data on discarded part of the fishing catch and to detect

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1. <sup>1</sup> Fisheries Research Institute of Slovenia  
2. <sup>2</sup> Statistical Office of The Republic of Slovenia  
3. <sup>3</sup> Ministry of Agriculture, Forestry and Food

the target and incidental species in the catch and by-catch. Sampling was carried out for the following four metiers: PS\_SPF  $\geq$  14\_0\_0, OTB\_DEF  $\geq$  40\_0\_0, GTR\_DEF  $\geq$  16\_0\_0 and GNS\_DEF  $\geq$  16\_0\_0.

The reasons for the small number of samplings were mainly due to the fact that observers were not able to board on the vessels, either because of non-cooperation from fishermen, or due to the fact that vessels were too small and because of the seasonal activity of fishermen.

Vessels are trying to avoid and reject the acceptance of observers on board, since this constitutes an unnecessary additional burden in order to ensure the safety of observers. As Slovenia does not have a legal basis for carrying out sampling on board of fishing vessels, it would be possible to motivate the fishermen with compensation for the admission / exit of observers / samplers on board, as far as it could be justified as the cost of data collection within the framework of the EMFF.

Based on reports from the Association for sport fishing at sea, approximately 1/3 of the population is covered by data collection for leisure fishing at sea. This means that approximately 350 annual permits out of 950 are returned. This data are not statistically processed and are as raw data inserted in the data base. Only data from the holders of the annual permits for recreational fisheries on sea are collected. Daily and weekly permits and also a recreational fishery from the shore are not taken in the consideration. FRIS proposal is that the issue of new annual permits would be conditioned with the submission of the completed data for the old permit. Given the methodology of data processing and projection of this data on the entire population, it was agreed that MAFF addresses the methodological issue on SORS.

On the basis of MEDITS study and interpretation of the results, a question of determining the age of the types of mullet (*Mullus barbatus*), red mullet (*Mullus surmuletus*) and hake (*Merluccius Merluccius*) still remains open because nobody knows to determine it from otoliths. This year Slovenia requested Commission for derogation on this issue in the amendment of NP 2016. In addition, an initiative to organize workshops for learning how to read otoliths of these species was addressed by FRIS in Adriamed.

MEDIAS survey is carried out jointly with the Italian study. The data for Slovenia are integrated with the data for Italy and are also reported under Italian model.

The collection of data on aquaculture and processing industry is conducted in compliance with NP.

In the context of collecting data to evaluate the impact of the fisheries sector on the marine ecosystem, the data collected can be used only for use in a regional context, after they are combined with data of other countries. Due to the small size of our sea, fishing data outside the regional framework are useless.

In other activities of data collection there are no specifics and everything is done in accordance with the national program for data collection.

FRIS will perform the same activities in 2016 as in 2015.

In 2016 all activities within the DCF related to the socio-economic data will be carried out similarly as in 2015. In the beginning of April, questionnaires about the socio-economic situation of marine fisheries will be sent to fishermen. Questionnaires to the economic operators for mariculture and fish processing industry are expected to be sent in early July. We will also start with the preparation for any new methodology for collecting data in relation to the new regulation for the collection of data by the Commission that is planned for 2016.

This was followed by an overview of attendance at meetings and arrangements that were relevant for Slovenia, which are derived for each meeting. The review included only meetings,

which are eligible for co-financing under the program of collection of data on fisheries for the year 2015. 1. We attended 8 meetings.

Next on the list was presentation, prepared by the Commission (2015-12-02-Presentation DCF.pptx) that was sent to us by e-mail. Presentation was followed by discussion on the implementation of data collection in 2016.

After that followed the presentation of the Slovenian draft amendments to the proposal of the new regulation on data collection, which were already submitted by Slovenia to the Secretariat of the Council and are also included in so called Bible.

This was followed by the presentation of a proposal for the implementation of the National Programme in 2016, together with all amendments and requests for derogation, which were addressed to the Commission. There are no major changes in the NP 2016 in comparison with 2015, other than an application for derogation for reading otoliths of the species *Merluccius merluccius*, *Mullus barbatus* and *Mullus surmuletus*. In addition, we have applied Adriamed to organize a workshop for reading otoliths for these species.

The number and type of data requirements, which were submitted in 2015, were also presented. In 2015 the data to the four major groups of end-users were transmitted, namely: SORS, EUROSTAT and FAO, GFCM, the European Commission (JRC) and other end-users where it was necessary to create ad hoc queries and reports, they were mostly non-governmental environmental organizations, institutes and researchers.

The following outstanding issues that are addressed to the Commission were identified:

There is still a problem with the admission of observers on board of fishing vessels. Above all, the problem is that the fishing vessels are small and any additional person on board constitutes an aggravating circumstance for fishermen to perform work because it occupies already small space on the vessel. Another problem, relates to ensuring the safety of observers. One possible solution is that the observer would be on his boat and would accompany fisherman on fishing. We are interested in whether this can be justified in the context of the cost of data collection. Another possibility is that the observer pays to the fisherman for the purchase of the total catch and discard it needs to carry out the research. A third possibility is that a fisherman can be paid compensation or stimulation to take the observer on board. For these two options we are also interested if they are justifiable in the context of data collection and whether any of the Member States is using any of these options.

We are also interested in when the publication of the EU DC-MAP and a new regulation on data collection is scheduled as well as how much time we MS will have for the preparation of the annual work plan?

Moreover, the National Coordination meeting supports all proposals and amendments that were put forward to the Council Secretariat as part of comments on the proposal for a new regulation on data collection.

## ***II.B Regional and International coordination***

### **II.B.1 Attendance of international meetings**

Information on participating in meetings by Slovenian experts in 2014:

1. Workshop on Transversal Variable - Zagreb, Croatia; 19.1. to 23.1.2015; Edvard Avdič Mravlje;
2. GFCM - SAC - SCESS subcommittee on economic and social issues - Rome, Italy; 3.2. to 6.2.2015; Edvard Avdič Mravlje;



3. GFCM - SAC - Rome, Italy; 23.3. to 27.3.2015; Edvard Avdič Mravlje, Roman Čičmirko;
4. Meeting of National Correspondents - Brussels, Belgium; 25.3.2015; Jernej Švab;
5. PG ECON - Berlin, Germany; 18.5. to 22.5.2015; Edvard Avdič Mravlje;
6. Workshop on Aquaculture Data Collection - Gdynia, Poland; 15.6. to 19.6.2015; Edvard Avdič Mravlje;
7. RCM Med & BS 2014 - Rome, Italy; 9.9. to 11.9.2015; Edvard Avdič Mravlje and Jernej Švab;
8. LM 2015 - Brussels, Belgium; 8.9. to 10.10.2015; Jernej Švab

## **II.B.2 Follow-up of regional and international recommendations and agreements**

We are following all relevant regional and international recommendations.

For the sampling strategy and stock related variables according to the recommendation (RCM MED & BS 2008) the sampling protocol of the landings is the same like on the Italian side with the understandably smaller amount of samples.

### **III Module of the evaluation of the fishing sector**

#### ***III.A General Description of the fishing sector***

Slovenian fishing sector was in 2015 composed by 169 vessels the majority of the vessels were under 6 meters long, 48 %. 44 % of the vessels were from 6 to 12 meters long and 8 % of the vessels were from 12 to 18 meters long.

In 2015 86 vessels were active, 40 % of the vessels were under 6 meters long, 49 % of the vessels were between 6 and 12 meters long and 11 % of the vessels were from 12 to 18 meters. No vessels over 18 meters were active in 2015.

#### ***III.B Economic variables***

All economic variables are for Supra region Mediterranean Sea and Black Sea, according to the Annex II of commission Decision 2010/93/EU.

##### **III.B.1 Achievements: Results and deviation from NP proposal**

The economic variables were collected on the basis of Council Regulation (EC) No. 199/2008 and of Appendix VI to the Commission Decision 2010/93/EU.

Slovenian fishermen execute their fishing operations just in one region – Mediterranean (GSA 17).

In April 2015 we executed a new questionnaire for the purpose of collecting the socio-economic data for the year 2014.

The economic variables were collected for all vessels, also for those under the ten meters length, regardless of their activity. All economic variables were collected for active vessels. For inactive vessels only capacity indicators and capital value were collected.

The economic variables were reported for each segment of the fleet as provided in Appendix III of the Commission Decision 2010/93/EU. A vessel was classified into a particular segment by taking into account which fishing gear prevails with regard to the number of fishing days (i.e. the vessel uses that gear more than 50 % of its time fishing).

The socio-economic data on the fishing sector were collected mostly from accounting records – AJPES, from data base InfoRib, through questionnaires and sales notes. In the monitoring programme all fishing vessels were included. The data collected from all sources were combined in such a way that a complete set of accounting items is compared for each business enterprise.

The target population was entire fishing sector in Slovenia. There were approximately 120 companies or fishermen in Slovenia.

In 2014 in Slovenia were 91 active vessels of which around 77 vessels (85% of all active vessels) are less than 12 meters LOA. The fleet is characterized by a strong multi-specify and multi-gear activity. The majority of vessels operate in coastal waters of Slovenia.

Data were collected on the whole population of fishing vessels. We sent questionnaires to all users of fishing vessels and around 88 % of them responded to the questionnaires. Among active fishing fleet the response rate was 97%.

According to confidentiality, Slovenia had to combine fleet segments. Slovenia clustered segments similar to other segments, i.e. segments of different lengths which are using similar gears.

In 2015 we also improved reporting system in our information system InfoRib for socio-economic data reports.

#### Employment parameters:

FTE Harmonised is defined as follows (using a threshold of 2000 hours):

- each crewman working annually 2000 hours or more is counted as one FTE;

- each crewman working less than 2000 hours per year is counted as a percentage of a FTE according to the number of hours worked in relation to the threshold of 2000 hours;
- working time is the time spent on fishing and related activities on board or on shore. This means that working time is only a part of the duration of a fishing trip.

FTE National is defined as follows (using a threshold of 2088 hours):

- each crewman working annually 2088 hours or more is counted as one FTE;
- each crewman working less than 2088 hours per year is counted as a percentage of a FTE according to the number of hours worked in relation to the threshold of 2088 hours;
- working time is the time spent on fishing and related activities on board or on shore. This means that working time is only a part of the duration of a fishing trip.

Estimation of capital value and capital costs:

Capital value is in principle the sum of all assets (or liabilities) presented on the annual balance sheet. The capital value of the fishing firms is in principle composed of the following components:

- Fixed tangible assets – sea-based = vessel, engine, electronics, other equipment on board.
- Fixed tangible assets – shore based = buildings, cars and other facilities on shore.
- Intangible assets = licenses, quota, permits, etc.
- Working capital = liquidity (money) required to pay regularly on-going operational expenses.
- Reserves, participations, shares, etc. = resources (money) ‘invested’ in assets not directly related to the fishing operations, but for example maintained to assure pension payments to the owner.

*Estimation of price per capacity unit:*

As the reference values Slovenia mostly used book values from the balance sheets, values from second market and values from questionnaires. According to estimation methods Slovenia used Historic prices, i.e. prices actually paid in for newly constructed vessels. In the case of old vessels, when historical prices were not known, replacement value has been used.

Slovenia used the heavy machinery index.

*Yearly depreciation cost in Slovenia (national legislation):* the depreciation is calculated with regard to the original cost of the physical capital, reduced for the estimated residual value. It is calculated using the straight-line method and using the following depreciation rates:

1. buildings 2,5 % - 5 %,
2. equipment 8 % - 33 %,
3. fishing vessels 5 %,
4. Computer equipment 30 % - 50 %.

Age schedule for:

1. Hull – 20 years,
2. Engine – 5 years,
3. Electronics – 2 years,
4. Equipment and Other – 3 years.

Share of each asset on the total value of the capital:

1. Hull (60%)
2. Engine (20%)

3. Electronics (10%)
4. Equipment and Other (10%)

### **III.B.2 Data quality: Results and deviation from NP proposal**

The national program for collection of economic data for the fishing sector combines information from three main resources:

1. Questionnaire information returned from the aquaculture sector on a voluntary basis,
2. The Slovenian data base InfoRib,
3. The annual accounts of business enterprises.

The data collected from all sources are combined in such a way that a complete set of accounting items is compared for each business enterprise.

Data were collected on the whole population of fishing vessels. We sent questionnaires to all users of fishing vessels and around 88 % of them responded to the questionnaires.

In the future we will continue to increase the volume of field work - personal contact with the fishermen, to obtain further information on the socio-economic situation of marine fisheries in Slovenia. We also intend to organize working meetings with fishermen to improve response rate of the questionnaires.

### **III.B.3 Actions to avoid deviations**

*Slovenia carries out all the obligations according to EU legislation and does not have shortfalls in this respect.*

### ***III.C Metier-related variables***

All métier-related variables are for Supra region Mediterranean Sea and Black Sea, according to the Annex II of commission Decision 2010/93/EU.

#### **III.C.1 Achievements: Results and deviation from NP proposal**

Biological sampling of the landings for Slovenia covers only sardine (*Sardina pilchardus*) and anchovy (*Engraulis encrasicolus*) caught by purse seines targeting strictly small pelagic fish. We are obligated to sample only two samples per year according to our yearly landings for the length and one for the age structure. Considering calculations from the recent years, we decided that instead of only 2 samples per year (like the case in the past legislative frames), Slovenia takes monthly samples from purse seiners if they are available. This way we also follow regional recommendations and receive the needed precision levels.

#### **Deviation from NP proposal:**

Reduced number of samples of landings taken because Slovenian pelagic trawlers stopped operating in 2012.

Regarding the stock specific sampling of sardine and anchovy in metier PS\_SPF\_>=14\_0\_0 the planned number of samplings was not achieved due to seasonal activity of purse seiners.

Regarding the concurrent samplings of metiers the planned number was not achieved because the observers are still not able to attend the fishing trip (and collect the samples) unless fishermen allow them to embark.

**Fleet capacity:** because of the small numerous of data actual values were submitted (sum of data) and not the estimations. Most of the parameters, connected with fishing fleet are not the result of the sampling, but the whole population is considered.

**Fishing capacities:** The data sources were logbooks. Since all Slovenian vessels are obliged to fulfil logbooks (including the vessels smaller than 10 m) all related data were available through instruments such as the fishing fleet register and the logbook database (which are both part of the information system InfoRib).

**Fishing effort:** the calculation is made using whole population of the particular segment. All the segments together represent whole Slovenian fishing fleet.

Data were required on the following parameters and levels of aggregation:

- **Fuel consumption:** The data sources were logbooks, questionnaires and fleet vessel register (GT, kW, number of vessels). The data on the quantity and type of fuel were collected through the use of survey questionnaire. The data for monitoring were collected through the use of technical literature – the fuel consumption per hour of operation were calculated for a particular type of engine and multiplied by the hours that the vessel has spent at sea (the data on the number of hours at sea can be found in the vessel's logbook).
- **Fishing effort by type of technique** defined in Appendix VIII on a quarterly basis and, according to level 3 of geographical desegregation defined in Appendix I in addition to the overall effort, the contribution of each segment defined in Appendix III shall be individualised
- **Specific fishing effort** associated with stocks of special interest as in (ii) and according to level 3 of geographical desegregation defined in Appendix I.

The data sources were logbooks and fleet vessel register (GT, kW, number of vessels, type of fishing technique etc.).

Logbook database which is part of InfoRib is fishing effort data source. The information system InfoRib contains data on catches on a trip basis by vessel, type of gear, species and number of days at sea.

All the relevant data were collected through logbook system, which covers all vessels regardless of their size. The data collection included also vessels smaller than 10 metres.

**Catches and landings:** The data sources were logbooks. Since all Slovenian vessels are obliged to fulfil logbooks (including the vessels smaller than 10 m) all related data were available through instruments such as the fleet register and the logbook database (which are both part of the information system InfoRib). The landing data were obtained also from questionnaire. Data collected from logbooks include also vessels smaller than 10 meters.

**Deviation from NP proposal:**

No deviation from NP proposal.

**Discards:** The data on discards are available through logbook system and samplings of different fishing gears. Fisheries Research Institute is sampling discards continuously since 2006. Monitored gears in 2015 are shown in standard table (III.C.4). In the sampling scheme vessels smaller than 10 meters were also included. In the discard samplings we are monitoring all discarded organisms and not only fish species listed for our area.

**Deviation from NP proposal:**

Data collection requirements were partly met because the sampling on board of fishing vessels was difficult due to lack of appropriate authorizations for the observers.

### III.C.2 Data quality issues

Results are shown in the tables III.C.

Observers on board of fishing vessels are collecting data for all taxa in the catch. They are collecting biometric data separately for retained and discarded quantities. All specimens or subsamples thereof are measured with precision of one millimetre. This ensure high quality of data which is then stored in database. The serious problem is not the quality of data deriving from a single sampling but the small number of samples achieved. Number of samples is to low due to non-cooperative fisherman.

#### **Deviation from NP proposal:**

In the National Data Collection Programme for 2015 Slovenia predicted estimation of values of landings based on sales notes. First problem that we have at the moment are non-uniformed and very different forms that we receive, but we are working on solving this problem. Second problem is getting the data from the Italian fish market in Trieste, where most of the purse seiners and bottom trawlers perform the first sale of their fish.

For the sampling strategy and stock related variables according to the recommendation (RCM MED & BS 2009) the sampling protocol of the landings is the same as on the Italian side with the understandably smaller amount of samples.

In the table III.C.3 in the column achieved number of trips numbers correspond with the actual numbers of trips at sea as they should. Those were trips connected with the monitoring of the discards. Trips on shore for the samples of landings are filled also.

### III.C.3 Actions to avoid deviations

The main reason for deviations is laying in non-cooperative behaviour of fisherman. In future we should find out a legal way for rewarding their cooperation.

## ***III.D Recreational fisheries***

All recreational fisheries data are for Supra region Mediterranean Sea and Black Sea, according to the Annex II of commission Decision 2010/93/EU. In 2008 Slovenia adopted the rule (Official Gazette of RS, no. 64/08 from 27. 6. 2008 – Rules on leisure sea Fishing) where every non-commercial fisherman (except the ones fishing from the shore) has to report the retained catch and effort separated by species.

### **III.D.1 Achievements: Results and deviation from NP proposal**

Data was obtained by the filled-in annual licenses of sport fishermen that represent about 90-95 % of all non-commercial fishermen in Slovenia which are gathered by the Sea Sport Fishing Federation of Slovenia.

The calculation of data from occasional recreational fishermen that represent roughly 5-10% of all non-commercial fishermen was planned to be acquired from the returned sold daily and weekly licences. Unfortunately in 2015 we didn't get any returned daily nor weekly licenses. Suitability of data (fulfilling the needed data in all types of licenses) was also checked through inspections at sea. The problem is that not all fishermen are cooperating. Latest legislative changes are allowing the fisheries inspectors to sanction the fishermen that are not reporting catch and effort. In the last years the percentage of returned statistical parameters from fishermen is slowly growing. It is not an easy task since they are complaining for being forced to do all that reporting in Slovenia for all species, comparing to colleagues in neighbouring countries that are virtually reporting nothing about non-commercial fishing.

Slovenia has no list of derogations according to recreational fisheries.

For the future Slovenia will try to collect more yearly licences and to develop sound statistical methodology for the calculation of the missing part of the data and to extrapolate the received data to the entire population.

### **III.D.2 Data quality issues**

In 2015 data were from sport fishermen who need to fulfil the yearly license with the description of the retained catch and the effort (fishing time in hours) for every day. We received 385 returned yearly licences from 972 issued licences to members, with written retained catch and effort for every day of fishing. We are expecting to receive few more returned licences in the upcoming months. The licenses that were not returned could also mean that the person was not fishing. Data quality target is getting the exact statistics – with retained catches and effort from all sport fishermen that represent roughly 90-95% of all non-commercial fishermen, and also from occasional recreational fishermen (the rest 5-10%). That will cover the whole population of non-commercial fishing in Slovenia except fishing from the shore. There was no deviation from the NP proposal since Slovenia is gathering data from every non-commercial fisherman that is required to report the retained catch and effort.

For the future Slovenia will try to collect more yearly licences and to develop sound statistical methodology for the calculation of the missing part of the data and to extrapolate the received data to the entire population.

### **III.D.3 Follow-up of Regional and international recommendations**

According to the legislation (Decision 2010/93/EU – appendix IV) we were supposed to target our sampling on Bluefin tuna, eel and sharks, but we are not performing any kind of fishing activities targeting those species. Eel is also protected by Slovenian legislation. There are few accidental catches of smaller smooth hound (*Mustellus mustellus*). Slovenia decided to monitor all species retained as the catch of sport and recreational fishermen. So far, no regional coordination or shared programs in our marine region were formally offered by Slovenia or the neighbouring Adriatic countries Italy and Croatia. Contacts with the mentioned countries and other participants of the FAO regional project have been made and cooperation has been established in many fields. Also no multilateral agreements or other initiatives were established as far as recreational fishing is concerned.

### **III.D.4 Actions to avoid deviations**

With cooperation from Statistical department of the Republic of Slovenia, we are working on methodology for calculating the missing part of the retained catch and effort of fishermen that didn't return the fulfilled licenses. Also we are looking for a way to stimulate fishermen, which are still not returning the statistics of their catch and effort, to cooperate and present the valuable data. Fishing clubs within the national association are also encouraged to start conditioning the purchase of new licences with returning of the fulfilled previous ones. For the future Slovenia will try to collect more yearly licences and to develop sound statistical methodology for the calculation of the missing part of the data and to extrapolate the received data to the entire population.

### ***III.E Stock-related variables***

All stock-related variables are for Supra region Mediterranean Sea and Black Sea, according to the Annex II of commission Decision 2010/93/EU.

### **III.E.1 Achievements: Results and deviation from NP proposal**

#### **Deviation from NP proposal:**

Data collection requirements for the number of samplings in 2015 were only partly met. Namely, there is still no national legislation that would require the fishermen to accept the

observers for the on-board sampling. The observers are still not able to attend the fishing trip (and collect the samples) unless fishermen allow them to embark.

### **III.E.2 Data quality issues**

#### **Deviation from NP proposal:**

Data collection requirements were partly met because of the seasonal activity of purse seiners targeting sardine and anchovy. Slovenia implemented measures for reduced fishing for small pelagic fish. Purse seiners reduced the fishing effort in 2015 also because of the economic situation. In some periods costs for the crew surpassed the earnings and they stopped performing fishing activities. If the fishermen are not performing fishing activities also planned samplings cannot be performed.

### **III.E.3 Actions to avoid deviations**

Sampling is performed and under control of the Fisheries Research Institute of Slovenia. Because the purse seiners only operate during the warm period of the year and they are the only ones that land enough fish to meet our sampling requirements, we could not complete the planned monthly sampling scheme. In that respect we plan to concentrate our collection of samples to the warm period of the year (ie the summer months) so that we would still get enough data to meet the suggested precisions for the two target species (anchovy and sardine).

### ***III.F Transversal variables***

Transversal variables (landings and effort data) were collected for all vessels active at any point in time of the previous year. Capacity data were collected for vessels registered on 1 January 2015.

#### **III.F.1 Capacity**

Fishing capacity data are part of the Fleet Vessel Register Module of the information system InfoRib. The Fleet Register data were integrated with other sources of data in order to obtain data at the level of fleet segments and at the level of métiers.

In order to obtain the data according to Appendix VIII there were two data sources used: Fleet Vessel Register data and Logbook data. The populations for data collection were all vessels in the Fleet Vessel Register on 1 January 2015.

##### **III.F.1.1 Achievements: Results and deviation from NP proposal**

Data were collected on the whole population of fishing vessels. There was no deviation from NP proposal.

##### **III.F.1.2 Data quality: Results and deviation from NP proposal**

The quality of the data is ensured since all vessels are taken into account. Data were collected to cover all the parameters mentioned in Appendix VIII according to the segmentation set out in Appendix III. In the monitoring program, all fishing vessels were included.

##### **III.F.1.3 Actions to avoid deviations**

There were no actions planned.



### **III.F.2 Effort**

Effort data were collected for all vessels active at any point in time of the year 2015. The data were collected from the logbooks. All Slovenian vessels, also those under the 10 meters, are obligated to submit the logbooks.

#### **III.F.2.1 Achievements: Results and deviation from NP proposal**

Data were collected on the whole population of fishing vessels. There was no deviation from NP proposal.

#### **III.F.2.2 Data quality: Results and deviation from NP proposal**

The quality of the data is ensured since all vessels are taken into account. Data were collected to cover all the parameters mentioned in Appendix VIII according to the segmentation set out in Appendix III. In the monitoring program, all fishing vessels were included.

#### **III.F.2.3 Follow-up of Regional and international recommendations**

No recommendations are applicable for Slovenia.

#### **III.F.2.4: Actions to avoid deviations**

There were no actions planned.

### **III.F.3 Landings**

The target populations for data collection were all vessels from the Slovenian Fleet Register as of 1 January 2015. No specific actions were planned for vessels less than 10 meters.

#### **III.F.3.1 Achievements: Results and deviation from NP proposal**

Data were collected on the whole population of fishing vessels. There was no deviation from NP proposal.

#### **III.F.3.2 Data quality: Results and deviation from NP proposal**

The quality of the data is ensured since all vessels are taken into account. As a type of data collection Slovenia used census. Census attempts to collect data from all members of a population. All parameters were gathered with the help of more sources which guarantees the cross-checking of data.

The prices of fish were collected with questionnaires and sales notes. For cross-checking purposes the data from AJPES – income and quantity of catch acquired from logbooks are used (total income / total catch = price per kg).

The data were collected to cover all the parameters mentioned in Appendix VIII according to the segmentation set out in Appendix III. In the monitoring program, all fishing vessels were included.

#### **III.F.3.3 Follow-up of Regional and international recommendations**

No recommendations are applicable for Slovenia.

#### **III.F.3.4 Actions to avoid deviations**

There were no actions planned.

### **III.G Research surveys at sea**

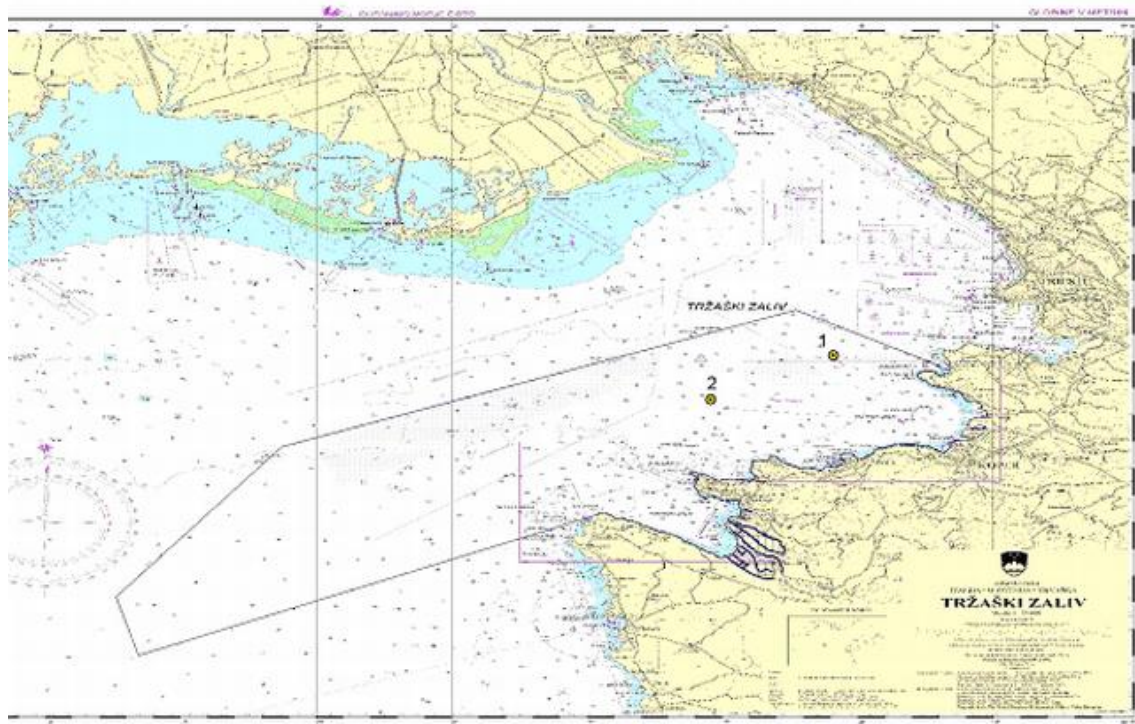
#### **III.G.1 Achievements: Results and deviation from NP proposal - MEDITS**

The aim of the survey is to monitor demersal species (spatial and temporal distribution, abundance indices) in Slovenian territorial waters following the MEDITS protocol. (<http://www.zzrs.si/index.php/en/Marine-Fisheries/MEDITS-Program/>).

The survey was performed in one day with the MEDITS bottom trawl net, performing two samplings in sea fishing area of the Republic of Slovenia (Figure 1).

Survey was performed as it was planned in NP 2015. With 2 sampling stations during the same day in Slovenian territorial waters with the standard MEDITS sampling net.

We followed the new list of MEDITS target species that is listed in the Annex 1 of this document. Taxons under the numbers of 9 and 28 – (originally on the level of genus) are expanded to the level of species in our protocol.



**Figure 1:** MEDITS sampling stations in sea fishing area of the Republic of Slovenia. (Map1; base map source: Ministry of Transport of the Republic of Slovenia).

#### **III G 1.2. Data quality: results and deviation from NP proposal**

Results were already updated in the tables and were sent along with the latest data call.

Deviations from NP proposal: Due to technical reasons the data for TD table was not available and consequently TD table has not been reported. In the future the data on bottom temperature will be included in a new TA table, prepared according MEDITS protocol version 6 or latter.

TD and TA table are standard tables according to MEDITS protocol. TA stands for haul data And TD is obsolete table for abiotic data.

#### **III G 1.3 Follow-up of Regional and international recommendations**

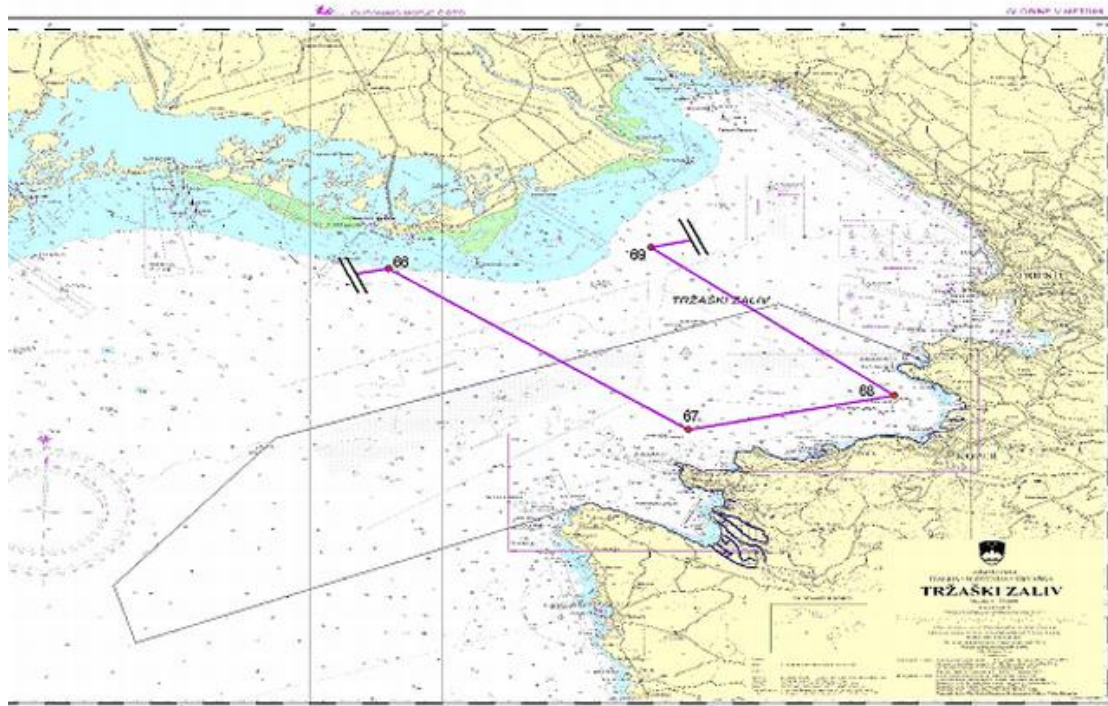
We are following the conclusions of the yearly regional MEDITS coordination meetings.

### III G 1.3 Actions to avoid deviations

In the future the data on bottom temperature will be included in a new TA table, prepared according MEDITS protocol version 6 or latter. Also conclusions of the yearly coordination meetings will be followed.

### III.G.2 Achievements: Results and deviation from NP proposal - MEDIAS

The aim of the echo-survey is to monitor small pelagic species (spatial and temporal distribution, abundance indices) in Slovenian territorial waters following the MEDIAS protocol. The survey in Slovenian waters is a small part of joint North Adriatic Echo-survey performed by Italian scientists from CNR ISMAR of Ancona (<http://www.ismar.cnr.it/>) with the research vessel G. Dallaporta each year, usually in September or October. The survey was performed in one day by echo-sounding the track of the protocol for Northern Adriatic including two samplings with MEDIAS pelagic trawl net in sea fishing area of the Republic of Slovenia (Figure 2). During the stops for CTD, vertical samples of plankton were also taken on both sampling stations for the second time from the beginning of the survey.



**Figure 2:** MEDIAS sampling transects in sea fishing area of the Republic of Slovenia (Map2; base map source: Ministry of Transport of the Republic of Slovenia).

MEDIAS sampling transects as performed in 2015 in the sea fishing area of the Republic of Slovenia. Two net samplings were planned in NP 2015, but because of the bad weather conditions, we managed to perform only one in Slovenian territorial waters. We followed the list of MEDIAS target species:

Species code	Scientific name
PIL	<i>Sardina pilchardus</i>
ANE	<i>Engraulis encrasicolus</i>

Table 2: MEDIAS target species.

All other species are divided into:

1. other pelagic species (OPS)
2. fish without swim bladder (OPS - SVN)

3. demersal species.

**III G 2.2. Data quality: results and deviation from NP proposal**

Results of that survey (only 1 sampling) are incorporated in the Northern Italian MEDIAS small pelagic survey.

In 2015 only one pelagic trawling net sampling was performed for identifying the fish species since in the afternoon bad weather prevented the second sampling. Echo sounding of the planned area was completed 100%.

**III G 2.3 Follow-up of Regional and international recommendations**

We are following the conclusions of the yearly regional MEDIAS coordination meetings.

**III G 2.3 Actions to avoid deviations**

Conclusions of the yearly coordination meetings are followed. No actions needed because sampling plans for 2015 were 100% achieved.

## **IV Module of the evaluation of the economic situation of the aquaculture and processing industry**

### ***IV.A Collection of data concerning the aquaculture***

The economic variables were collected on the basis of Council Regulation (EC) No 199/2008 and the Appendix X to the Commission Decision 2010/93/EU.

Regards to the data base “The central register of aquaculture and commercial ponds” from MAFF, in 2014, there were 8 operators in Slovenia dealing with shellfish farming, primarily with mussel farming (Mediterranean mussel). The shellfish are farmed using hanging ropes that are attached to rafts.

In the year 2014 was one subject that was engaged in breeding of fish. Main species for breeding are sea bream and sea bass. Main farming technique is breeding in cages.

The data for the operators mentioned were collected from multiple sources (AJPES, questionnaire, MAFF), allowing for cross checking. The accounting data, which are collected by the AJPES public agency, are already checked and verified. The data were collected for all 8 subjects.

Data were collected only for the marine fish species.

#### **IV.A.1 Achievements: Results and deviation from NP proposal**

In June 2015 the questionnaires for 2014 were sent to all 8 operators and all of them also returned the questionnaire. Therefore, the response was 100 %.

#### **IV.A.2 Data quality: Results and deviation from NP proposal**

Economic data on the aquaculture sector were collected from accounting records – AJPES and through questionnaires. The national program for collection of economic data for the aquaculture sector combines information from three main resources:

- Questionnaire information returned from the aquaculture sector on a voluntary basis,
- Data base: ‘The central register of aquaculture and commercial ponds’ from MAFF,
- The annual accounts of business enterprises.

The data collected from all sources are combined in such a way that a complete set of accounting items is compared for each business enterprise.

In cases where a questionnaire, as the only source, was used the response rate was 100 %. In cases where the data from annual accounts of business enterprises was used the response rate was also 100 %, because we have economic reports for all investigated companies.

The target population in 2014 was entire marine aquaculture sector in Slovenia.

#### **IV.A.3 Actions to avoid deviations**

No actions needed.

### ***IV B Collection of data concerning the processing industry***

The economic variables were collected on the basis of Council Regulation (EC) No 199/2008 and the Appendix XII to the Commission Decision 2010/93/EU.

According to the data from Veterinary Administration of the Republic of Slovenia (VARs) 17 companies were authorized, in 2014, for processing of fish and other marine organisms in Slovenia. Target population is therefore all companies who have a license for the processing of fish and other marine organisms and the processing involved in practice. The data for these subjects were collected from multiple sources (AJPES, questionnaire, VARs),

#### **IV.B.1 Achievements: Results and deviation from NP proposal**

In June 2015 the questionnaires for 2014 were sent to all 17 companies and 14 of them also returned the questionnaire. Therefore, the response was 82 %.

#### **IV.B.2 Data quality: Results and deviation from NP proposal**

Economic data on the fish processing industry were collected from accounting records – AJPES and through questionnaires that were sent to all processing companies in Slovenia.

Slovenia has a few processing companies that are entirely committed to fishery products. Most companies do have different types of processing activities, of which fish may be one, but not necessarily the most important one. This was taken into account when putting together the questionnaires and in the subsequent analysis of the data provided.

The national program for collection of economic data for the processing industry combines information from three main resources:

- Questionnaire information returned from processing companies on a voluntary basis,
- The data from Veterinary Administration of the Republic of Slovenia (VARŠ),
- The annual accounts of business enterprises.

The data collected from all sources are combined in such a way that a complete set of accounting items is compared for each business enterprise.

The target population were all fish processing companies in Slovenia in the year 2014.

#### **IV.B.3 Actions to avoid deviations**

No actions needed.

## **V Module of evaluation of the effects of the fishing sector on the marine ecosystem**

Slovenia takes samples and analyses the target species according to MEDITS protocol. A new list of common target species (including fish, molluscs and crustaceans) was established with reference to their commercial production, their accessibility by a bottom trawl and their potential interest as biological indicator in the different areas. It has been enlarged during the following years, particularly to include species of interest in areas newly integrated in the MEDITS survey, and taking into account the removal of one species (*Sparus pagrus*) from the list in 1996 due to its very rare occurrence in the samples. Observations on these species are the total number of individuals, length frequency distribution, sex (including sexual maturity stage) and total weight. The characteristics of each kind of observation are specified in the common manual of protocols. For all the other sampled species of fish, crustacean and mollusc, only the total number and total weight are reported for each haul.

### **V.1 Achievements: Results and deviation from NP proposal**

For the calculation of the ecosystem indicators only data from MEDITS survey are available. Each MEDITS survey performed in Slovenian territorial waters is composed of 2 samples only, restricted to a very small geographical area (see III.G.1/Map 1). Furthermore, the number of individuals captured is usually too small for the calculations. For these reasons, the calculation of the ecosystem indicators should be performed on the regional level, covering at least GSA 17. All indicators and other results can only be calculated through the MEDITS data at a regional level. Discarding rates are calculated from logbooks and observer's trips with the fishermen.

### **V.2 Actions to avoid deviations**

Our Vessel monitoring system (VMS) is completely functional and working properly as of June, 2009, data messages received are transformed to positions in program. Because the usual fishing trip duration for Slovenian fishermen is under 1 day, we set the collecting of position reports to approximately 5 minutes, so that we get sufficient resolution of the data for subsequent analysis.

## **VI Module for management and use of the data**

The Slovenian information system for the collection and management of the fisheries data InfoRib consists of several modules:

- Fleet Vessel Register Module
- Logbook Module
- Fishing Permits Module
- Socio-economic Module
- Reporting Module
- Sampling Module
- Technical Indicators Module
- Coding Module
- First Sale Module
- Aquaculture Module
- Processing Industry Module
- Meeting Module
- Oracle Discoverer Module

The InfoRib is a national centralized database and in all InfoRib modules primary data are stored except in the Reporting Module where also aggregated data are stored for reporting obligations. The biological data and data from research surveys at sea are stored in the biological database of the Fisheries Research Institute of Slovenia named Bios.

The data in the InfoRib database are protected on two levels:

1. They are accessible only through the secure information system of the national public administration HKOM;
2. The system InfoRib is developed in Oracle and it uses Oracle security system for each user. This is managed on two levels:
  - Firstly, access to primary data is protected using roles, grants and synonyms;
  - Secondly, the security on the forms levels is managed using a special mechanism with different access levels.

The modules are interconnected and enable different cross-checking, quality controls and validation procedures.

The metadata are already collected since the Oracle database is used.

The detailed and aggregated data, which are derived from primary data collected under the national programme and which are validated before their transmission to end-users are already and will also in the future be specified in special technical data documentation.

### **VI.1 Achievements: Results and deviation from NP proposal**

The InfoRib database enables us to produce several reports and supply end-users with detailed and aggregated data for supporting scientific analysis in accordance with Article 18 of Council Regulation No 199/2008.

The InfoRib, together with the combination of some Bios modules which are stored on the location of FRIS, assures that all data stored allow the assessment of the status of the exploited stocks plus the reliable estimation of the total volume of catches (defined by regional fishing types and fleet segments, geographical area and time period) including discards and also data regarding catches and recreational fisheries.

### **VI 2 Actions to avoid deviations**

We are continuously maintaining and updating the information system InfoRib and Bios.



## **VII List of acronyms and abbreviations**

- AJPES – The Agency of the Republic of Slovenia for Public Legal Records and Related Services
- FRIS – Fisheries Research Institute of Slovenia
- FVR – Fleet Vessel Register Module
- GFCM – General Fisheries Commission for the Mediterranean
- GSA – Geographical Sub-Area
- MAFF – The Ministry of Agriculture and Environment of the Republic of Slovenia.
- MEDIAS – Pan-Mediterranean pelagic survey
- MEDITS – Mediterranean International bottom trawl survey
- VARS – Veterinary Administration of the Republic of Slovenia.
- VAT – Value added tax
- VMS – Vessel Monitoring System

### **VIII Comments, suggestions and reflections**

It would be very useful that the forms for submission of the data for data calls will remain the same for a few consecutive data calls. Also because of the changes in forms for submission we have some extra costs related to preparation of data.

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- RCM Med&BS final report 2012.
- RCM Med&BS final report 2013
- RCM Med&BS final report 2014.

**X Annexes**

- Annex 1: MEDITS list of species.

## Annex 1: MEDITS list of species

Poizvedba1												
no	medits_list_proposal_2011	species_group_dcf	species_group_meditis	group	total_no	total_w	ind_length	sex	mat_age	age	ind_weight	code
1	Aspitrigla cuculus	G3	G2	Fish	x	x	x					ASPICUC
2	Boops boops	G2	G2	Fish	x	x	x					BOOPBOO
3	Citharus linguatula	G3	G2	Fish	x	x	x					CITHMAC
4	Diplodus annularis	G3	G2	Fish	x	x	x					DIPLANN
5	Diplodus puntazzo	G3	G2	Fish	x	x	x					DIPLUN
6	Diplodus sargus	G3	G2	Fish	x	x	x					DIPLSAR
7	Diplodus vulgaris	G3	G2	Fish	x	x	x					DIPLVUL
8	Engraulis encrasicolus	G1	G2	Fish	x	x	x					ENGREN
9,1	Epinephelus aeneus	G3	G2	Fish	x	x	x					EPINAE
9,2	Epinephelus costae	G3	G2	Fish	x	x	x					EPINALE
9,3	Epinephelus caninus	G3	G2	Fish	x	x	x					EPINCAN
9,4	Epinephelus marginatus	G3	G2	Fish	x	x	x					EPINGUA
10	Eutrigla gurnardus	G2	G2	Fish	x	x	x					EUTRUR
11	Helicolenus dactylopterus	G3	G2	Fish	x	x	x					HELIDAC
12	Lepidorhombus boscii	G3	G2	Fish	x	x	x					LEPMBOS
13	Lithognathus mormyrus	G3	G2	Fish	x	x	x					LITHMOR
14	Lophius budegassa	G2	G2	Fish	x	x	x					LOPHBUD
15	Lophius piscatorius	G2	G2	Fish	x	x	x					LOPHPIS
16	Merluccius merluccius	G1	G1	Fish	x	x	x	x	x	x	x	MERLMER
17	Micromesistius poutassou	G2	G2	Fish	x	x	x					MICMPOU
18	Mullus barbatus	G1	G1	Fish	x	x	x	x	x	x	x	MULLBAR
19	Mullus surmuletus	G1	G1	Fish	x	x	x	x	x	x	x	MULLSUR

Poizvedba1												
no	medits_list_proposal_2011	species_group_dcf	species_group_meditis	group	total_no	total_w	ind_length	sex	mat_age	stage	ind_weight	code
20	Pagellus acarne	G3	G2	Fish	x	x	x					PAGEACA
21	Pagellus bogaraveo	G3	G2	Fish	x	x	x					PAGEBOG
22	Pagellus erythrinus	G2	G2	Fish	x	x	x					PAGEERY
23	Pagrus pagrus	G3	G2	Fish	x	x	x					SPARPAG
24	Phycis blennoides	G3	G2	Fish	x	x	x					PHYIBLE
25	Polyprion americanus	G3	G2	Fish	x	x	x					POLYAME
26	Psetta maxima	G2	G2	Fish	x	x	x					PSETMAX
27	Sardina pilchardus	G1	G2	Fish	x	x	x					SARDPIL
28	Scomber colias,1	G2	G2	Fish	x	x	x					SCOMPNE
28	Scomber scombrus,2	G2	G2	Fish	x	x	x					SCOMSCO
29	Solea vulgaris	G1	G2	Fish	x	x	x					SOLEVUL
30	Spicara flexuosa	G3	G2	Fish	x	x	x					SPICFLE
31	Spicara MAFFna	G3	G2	Fish	x	x	x					SPICMAFF
32	Spicara smaris	G2	G2	Fish	x	x	x					SPICSMARMA
33	Trachurus mediterraneus	G2	G2	Fish	x	x	x					TRACMED
34	Trachurus trachurus	G2	G2	Fish	x	x	x					TRACTRA
35	Trigla lucerna	G2	G2	Fish	x	x	x					TRIGLUC
36	Trigloporus lastoviza	G3	G2	Fish	x	x	x					TRIPLAS
37	Trisopterus minutus capelanus	G3	G2	Fish	x	x	x					TRISCAP
38	Zeus faber	G3	G2	Fish	x	x	x					ZEUSFAB
39	Centrophorus granulosus	G1	G1	Elas mob	x	x	x	x	x		x	CENTGRA
40	Dalatias licha	G1	G1	Elas mob	x	x	x	x	x		x	SCYMLIC
41	Dipturus batis	G1	G1	Elas	x	x	x	x	x		x	RAJAB

Poizvedba1												
no	medits_list_proposal_2011	species_group_dcf	species_group_meditis	group	tot_no	tot_w	ind_length	sex	mat_age	stage	ind_weight	code
				mob								AT
42	Dipturus oxyrinchus	G1	G1	Elas mob	x	x	x	x	x		x	RAJAOXY
43	Etmopterus spinax	G1	G1	Elas mob	x	x	x	x	x		x	ETMOSPI
44	Galeorhinus galeus	G1	G1	Elas mob	x	x	x	x	x		x	GALEGAL
45	Galeus melastomus	G1	G1	Elas mob	x	x	x	x	x		x	GALUMEL
46	Heptranchias perlo	G1	G1	Elas mob	x	x	x	x	x		x	HEPTPER
47	Hexanchus griseus	G1	G1	Elas mob	x	x	x	x	x		x	HEXAGRI
48	Leucoraja circularis	G1	G1	Elas mob	x	x	x	x	x		x	RAJACIR
49	Leucoraja melitensis	G1	G1	Elas mob	x	x	x	x	x		x	RAJAMEL
50	Mustelus asterias	G1	G1	Elas mob	x	x	x	x	x		x	MUSTAST
51	Mustelus mustelus	G1	G1	Elas mob	x	x	x	x	x		x	MUSTMUS
52	Mustelus punctulatus	G1	G1	Elas mob	x	x	x	x	x		x	MUSTPUN
53	Myliobatis aquila	G1	G1	Elas mob	x	x	x	x	x		x	MYLIAQU
54	Oxynotus centrina	G1	G1	Elas mob	x	x	x	x	x		x	OXYNCEN
55	Raja asterias	G1	G1	Elas mob	x	x	x	x	x		x	RAJAAST
56	Raja clavata	G1	G1	Elas mob	x	x	x	x	x		x	RAJACLA
57	Raja miraletus	G1	G1	Elas mob	x	x	x	x	x		x	RAJAMIR
58	Raja polistigma	G1	G1	Elas mob	x	x	x	x	x		x	RAJAPOL
59	Raja undulata	G1	G1	Elas mob	x	x	x	x	x		x	RAJAUND
60	Rhinobatos cemiculus	G1	G1	Elas mob	x	x	x	x	x		x	RHINCSEM
61	Rhinobatos rhinobatos	G1	G1	Elas mob	x	x	x	x	x		x	RHINRHI
62	Rostroraja alba	G1	G1	Elas mob	x	x	x	x	x		x	RAJAALB
63	Scyliorhinus canicula	G1	G1	Elas mob	x	x	x	x	x		x	SCYOCAN

Poizvedba1												
no	medits_list_proposal_2011	species_group_dcf	species_group_meditis	group	total_no	total_w	ind_length	sex	mat_age	stage	ind_weight	code
64	Scyliorhinus stellaris	G1	G1	Elasmobranch	x	x	x	x	x		x	SCYOSTE
65	Squalus acanthias	G1	G1	Elasmobranch	x	x	x	x	x		x	SQUACA
66	Squalus blainvillei	G1	G1	Elasmobranch	x	x	x	x	x		x	SQUABLA
67	Squatina aculeata	G1	G1	Elasmobranch	x	x	x	x	x		x	SQUTACU
68	Squatina oculata	G1	G1	Elasmobranch	x	x	x	x	x		x	SQUTOC
69	Squatina squatina	G1	G1	Elasmobranch	x	x	x	x	x		x	SQUTSUQU
70	Torpedo marmorata	G1	G1	Elasmobranch	x	x	x	x	x		x	TORPMAR
71	Aristeomorpha foliacea	G1	G1	Crustacean	x	x	x	x	x		x	ARISFOL
72	Aristeus antennatus	G1	G1	Crustacean	x	x	x	x	x		x	ARITANT
73	Nephrops norvegicus	G1	G1	Crustacean	x	x	x	x	x		x	NEPRNOR
74	Parapenaeus longirostris	G1	G1	Crustacean	x	x	x	x	x		x	PAPELON
75	Palinurus elephas	G3	G2	Crustacean	x	x	x					PALIELE
76	Penaeus kerathurus	G2	G2	Crustacean	x	x	x					PENAKER
77	Squilla mantis	G2	G2	Crustacean	x	x	x					SQUIMAN
78	Eledone cirrosa	G2	G2	Cephalopod	x	x	x					ELEDCIR
79	Eledone moschata	G2	G2	Cephalopod	x	x	x					ELEDMOS
80	Illex coindettii	G2	G1	Cephalopod	x	x	x	x	x		x	ILLEC
81	Loligo vulgaris	G2	G1	Cephalopod	x	x	x	x	x		x	LOLIVUL
82	Octopus vulgaris	G2	G2	Cephalopod	x	x	x					OCTOVUL
83	Sepia officinalis	G2	G2	Cephalopod	x	x	x					SEPIOFF
84	Todarodes sagittatus	G2	G2	Cephalopod	x	x	x					TODASAG