

EUROPEAN COMMISSION

DIRECTORATE-GENERAL FOR MARITIME AFFAIRS AND FISHERIES

FISHERIES POLICY ATLANTIC, NORTH SEA, BALTIC AND OUTERMOST REGIONS.
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Cc: Permanent Representations

of EU Member States

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Subject: Call for data for the Fisheries Dependent Information (FDI); New-FDI

The STECF Fisheries Dependent Information (FDI) database was developed to support the management of fishing effort management regimes. With a transition to area-based multi-annual plans (MAPs) there was an opportunity to both rationalise the data base and move to the collection of an EU wide data set of fishing capacity, effort, landings, and discards. In 2017 the Commission requested the STECF to collect and review data in relation to a newly specified Fisheries Dependent Information Database (New-FDI). An expert working group (STECF EWG-17-12) reviewed both the data supplied and the appropriateness of the data call with respect to

- Collection of an EU wide data set.
- Compatibility of supplied data to that held in the Fleet Economic database (for the purpose of socio-economic impact assessments).
- Collecting data that can be used to assess the effects of current or foreseen management measures.

Lessons learnt from the 2017 data call and subsequent review have been incorporated into an updated data call for 2018.

The Commission herewith asks the Member States to provide data for 2015, 2016 and 2017 from within their National Data Collection programs¹. The present data call refers to DCF data aggregation in relation to i) the provisions of Regulation 199/2008 and Regulation 2017/1004, and ii) for nations party to the FDI-classic data call, the gentlemen's agreement (DG Mare - Member States) on evaluation of the fishing effort regimes (continued from the 'classical' FDI data call last issued in 2017).

The data should provide values for effort, landings and discards structured by age and by length, for 2015, 2016 and 2017. The data format to be used is described in annex I and data sets should be uploaded on the DCF data collection website (https://datacollection.jrc.ec.europa.eu/data-calls), where uploading guidelines are available.

This data call requests 2015, 2016 and 2017 data only.

The data collection website will be opened on 4 June 2018.

As per Article 17 of Reg (EU) 2017/1004, Member States are requested to supply the data as specified within 1 month from the opening of the data collection website. We would appreciate submission of the data no later than 3 July 2018 (midday). Member States should follow the agreed procedure for transmission of data (by upload onto the JRC server) and abide to the data handling procedures for the STECF Expert Working Groups (Ref. Ares(2015)498884 – 06/02/2015)².

The STECF Working Group will take place (10-14 September 2018).

Further guidance, complementary information or password information can be obtained by contacting the JRC data submission team (JRC-DATASUBMISSION@ec.europa.eu)

We look forward to your contributions.

Hélène CLARK [Signed]

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¹ Commission Decision of 18 December 2009 No <u>2010/93/EU</u> adopting a multiannual Community programme for the collection, management and use of data in the fisheries sector for the period 2011-2013, Commission implementing Decision C(2013)5243 of 13.8.2013 extending the multiannual Union programme for the collection, management and use of data in the fisheries sector for the period 2011-2013 to the period 2014-2016 and Commission Decision of <u>12 July 2016 (2016/1251/EU)</u>: Adopting a multiannual Union programme for the collection, management and use of data in the fisheries and aquaculture sectors for the period 2017-2019 (notified under document C(2016) 4329).

² Visit https://datacollection.jrc.ec.europa.eu/documents/10213/881778/2015-02-06_Data-handling+procedure+for+EWG.pdf for a copy of the document.

Annex I.

If allowed, all missing values (empty data cells) must be indicated by 'NK': This applies for both numeric and alpha-numeric fields.

A. Catch data for 2015, 2016 and 2017. Please ensure that data entries are fully consistent with coding given in the Appendixes. Data to be provided for all landings, both those from metiers selected for biological sampling and otherwise.

- COUNTRY: to be given according to the code list provided in Appendix 1. Missing values not allowed.
- 2. YEAR: to be given in four digits, like 2004. Missing values not allowed.
- 3. QUARTER: to be given as one digit, like 1, 2, 3, or 4. Missing values not allowed.
- 4. VESSEL_LENGTH: to be given according to the code list provided in Appendix 2. If not known put "NK".
- 5. FISHING_TECH: to be given according to the code list provided in Appendix 3. Missing values not allowed.
- 6. GEAR_TYPE: to be given according to the code list provided in Appendix 4. If not known put "NK"
- 7. MESH_SIZE_RANGE: to be given according to the code list provided in Appendix 5. If not known put "NK".
- 8. METIER: to be given according to Appendix 6. If not known put "NK".
- 9. DOMAIN_DISCARDS: text in format specified in Appendix 7³. If not known put "NK".
- 10. DOMAIN_LANDINGS: text in format specified in Appendix 7. If not known put "NK".
- 11. SUPRA_REGION: to be given according to the code list in Appendix 8. Missing values not allowed.
- 12. SUB_REGION: to be given according to the code list in Appendix 8. If not known put "NK".
- 13. EEZ_INDICATOR: to be given according to the code list in Appendix 8. If not applicable put "NA" (see appendix 8). If not known put "NK" (assumed the case if SUB_REGION is not known).
- 14. GEO_INDICATOR: to be given according to the code list in Appendix 9. If not known put "NK"
- 15. SPECON_TECH: to be given according to Appendix 10. If SPECON is not applicable, "NA" should be given. If not known put "NK".
- 16. TARGET_ASSEMBLAGE: to be given according to Appendix 6. If not known put "NK".
- 17. DEEP: Enter "DEEP" or "NA". (i.e. all landings, discards and other biological parameters falling under the Deep Sea regulations should be indicated with "DEEP". If fishing is not falling under the Deep Sea regulations "NA" should be given.)⁴
- 18. SPECIES: to be given according to the FAO three alpha code, see Appendix 11. Missing values not allowed.
- 19. TOTWGHTLANDG: estimated landings in tonnes (live weight). Precision to 3 digits after the decimal (nearest kg). Missing values not allowed.
- 20. TOTVALLANDG: estimated total value of the landings in Euro. Missing values not allowed.
- 21. UNWANTED_CATCH: estimated unwanted catch of any type including landings below MCRS (minimum conservation reference size) in tonnes. Precision to 3 digits after the decimal (nearest kg). If not known put "NK".
- 22. CONFIDENTIAL: If data considered subject to confidentiality enter "Y", otherwise enter "N". Missing values not allowed.

Domains refer to the group of vessels used to calculate estimates (discards, numbers at age, number at length) by a country. The domain may or may not be equivalent to a métier.

⁴ For data up to and including 2016: R(EC) No. 2347/2002. For data from 2017 R (EU) 2016/2336.

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Table B.

It is proposed for JRC to calculate age and length profiles based on the TOTWGHTLANDG and UNWANTEDCATCH values of Table A compared to Tables C-F where appropriate. The Table B of the 2017 call becomes redundant under this proposal. So that other tables can retain the same letter shorthand (Table C, Table D etc.) as in the 2017 call, the opportunity is taken to introduce a stand-alone table for information on refusal rates.

B. Refusal rate

- COUNTRY: to be given according to the code list provided in Appendix 1. Missing values not allowed
- 2. YEAR: to be given in four digits, like 2004. Missing values not allowed.
- 3. SAMPLE_FRAME: free text. Name of sample frame over which refusal rate calculated.
- 4. REFUSAL_RATE: the refusal rate for discard observers to be given according to Appendix 12. If not known put "NK".

C. Unwanted catch biological data (age based) for 2015, 2016 and 2017. Please ensure that data entries are fully consistent with coding given in the Appendixes. For some entries Unwanted Catch has been shortened to 'UC'.

- COUNTRY: to be given according to the code list provided in Appendix 1. Missing values not allowed.
- 2. YEAR: to be given in four digits, like 2004. Missing values not allowed.
- 3. DOMAIN_DISCARDS: text in format specified in Appendix 7. Missing values not allowed.
- 4. SPECIES: to be given according to the FAO three alpha code list, see Appendix 11. Missing values not allowed.
- 5. TOTWGHTLANDG: estimated landings in tonnes. Precision to 3 digits after the decimal (nearest kg). Missing values not allowed.
- 6. UNWANTED_CATCH: estimated unwanted catch of any type including landings below MCRS (minimum conservation reference size) in tonnes. Precision to 3 digits after the decimal (nearest kg). If age based information is present, this quantity should correspond to the sum of products. Missing values not allowed.
- NO_SAMPLES_UC: the number of TRIPS should be given that relate to unwanted catch only; a number should be given only if it relates to this domain; otherwise "NK" should be given.
- 8. NO_AGE_MEASUREMENTS_UC: the number of age measurements should be given that relate to unwanted catch only. If an ALK formed from a larger aggregation of vessels than the domain has been used to estimate age information for this domain insert the total number of age measurements used to form the ALK. If age measurements not available or number of measurements not known put "NK".
- 9. AGE_MEASUREMENTS_PROP: If an ALK formed from a larger aggregation of vessels than the domain has been used to estimate age information for this domain insert the proportion of age measurements coming from the domain. The value will be between 0 and 1. If not applicable (i.e. all age measurements came from within the domain) put "NA". If not known put "NK".
- 10. MIN_AGE: integer: the minimum age in the data for this SPECIES & DOMAIN combination; if minimum age and maximum age are both "NK", no age based data are given; minimum age and maximum age must either both be "NK" or both be not "NK".
- 11. MAX_AGE: integer: the true maximum age in the data for this SPECIES & DOMAIN combination (no plus group is allowed); if minimum age and maximum age are both "NK", no age based data are given; minimum age and maximum age must either both be "NK" or both be not "NK".
- 12. AGE: integer (MIN_AGE <= AGE <= MAX_AGE). If both MIN_AGE and MAX_AGE are "NK" write "NK".
- 13. NO_AGE_UC: Number of fish in the unwanted catch at that age, (unit of individuals). If no age specific information available write "NK".
- 14. MEAN_WEIGHT_UC: mean weight of fish in the unwanted catch at that age, (kg, precision in gram=3 digits after the decimal). If no age specific information available write "NK".
- 15. MEAN_LENGTH_UC: mean length of fish in the unwanted catch at that age, (cm, precision in mm=1 digit after the decimal). If no age specific information available write "NK".

D. Unwanted catch biological data (length based) for 2015, 2016 and 2017. Please ensure that data entries are fully consistent with coding given in the Appendixes. For some entries Unwanted Catch has been shortened to 'UC'.

- COUNTRY: to be given according to the code list provided in Appendix 1. Missing values not allowed.
- 2. YEAR: to be given in four digits, like 2004. Missing values not allowed.
- 3. DOMAIN_DISCARDS: text in format specified in Appendix 7. Missing values not allowed.
- 4. SPECIES: to be given according to the FAO three alpha code list, see Appendix 11. Missing values not allowed
- 5. TOTWGHTLANDG: estimated landings in tonnes. Precision to 3 digits after the decimal (nearest kg). Missing values not allowed.
- 6. UNWANTED_CATCH: estimated unwanted catch of any type including landings below MCRS (minimum conservation reference size) in tonnes. Precision to 3 digits after the decimal (nearest kg). Missing values not allowed.
- 7. NO_SAMPLES_UC: the number of TRIPS should be given that relate to unwanted catch only; a number should be given only if it relates to this domain; otherwise "NK" should be given.
- 8. NO_LENGTH_MEASUREMENTS_UC: the number of length measurements, from within the domain, should be given that relate to unwanted catch only; a number should be given only if it relates to this domain; otherwise "NK" should be given.
- 9. LENGTH_UNIT: unit of length classes, "mm"=millimetre, "cm"=centimetre. If length data not available write 'NK'.
- 10. MIN_LENGTH: integer: this is the minimum length in the data for this SPECIES & DOMAIN combination; if minimum length and maximum length are both "NK", no length based data are given; minimum length and maximum length must either both be "NK" or both be not "NK".
- 11. MAX_LENGTH: integer: this is the maximum length in the data for this SPECIES & DOMAIN combination; if minimum length and maximum length are both "NK", no length based data are given; minimum length and maximum length must either both be "NK" or both be not "NK".
- 12. LENGTH: integer (MIN_LENGTH <= LENGTH <= MAX_LENGTH). If both MIN_LENGTH and MAX_LENGTH are "NK" write "NK".
- 13. NO_LENGTH_UC: number of fish in unwanted catch at that length, (unit of individuals). If no length specific information available write "NK".

E. Landings biological data (age based) for 2015, 2016 and 2017. Please ensure that data entries are fully consistent with coding given in the Appendixes.

- COUNTRY: to be given according to the code list provided in Appendix 1. Missing values not allowed.
- 2. YEAR: to be given in four digits, like 2004. Missing values not allowed.
- 3. DOMAIN_LANDINGS: text in format specified in Appendix 7. Missing values not allowed.
- 4. SPECIES: to be given according to the FAO three alpha code list, see Appendix 11. Missing values not allowed.
- 5. TOTWGHTLANDG: estimated landings in tonnes. Precision to 3 digits after the decimal (nearest kg). Missing values not allowed.
- 6. NO_SAMPLES_LANDG: the number of TRIPS should be given that relate to landings only; a number should be given only if it relates to this domain; otherwise "NK" should be given.
- 7. NO_AGE_MEASUREMENTS_LANDG: the number of age measurements should be given that relate to landings only. If an ALK formed from a larger aggregation of vessels than the domain has been used to estimate age information for this domain insert the total number of age measurements used to form the ALK. If age measurements not available or number of measurements not known put "NK".
- 8. AGE_MEASUREMENTS_PROP: If an ALK formed from a larger aggregation of vessels than the domain has been used to estimate age information for this domain insert the proportion of age measurements coming from the domain. The value will be between 0 and 1. If not applicable (i.e. all age measurements came from within the domain) put "NA". If not known put "NK".
- 9. MIN_AGE: integer: the minimum age in the data for this SPECIES & DOMAIN combination; if minimum age and maximum age are both "NK", no age based data are given; minimum age and maximum age must either both be "NK" or both be not "NK".
- 10. MAX_AGE: integer: the true maximum age in the data for this SPECIES & DOMAIN combination (no plus group is allowed); if minimum age and maximum age are both "NK", no age based data are given; minimum age and maximum age must either both be "NK" or both be not "NK".
- 11. AGE: integer (MIN_AGE <= AGE <= MAX_AGE) If both MIN_AGE and MAX_AGE are "NK" write "NK".
- 12. NO_AGE_LANDG: Number of fish landed at that age, (unit of individuals). If no age specific information available write "NK".
- 13. MEAN_WEIGHT_LANDG: mean weight of landed fish at that age, (kg, precision in gram=3 digits after the decimal). If no age specific information available write "NK".
- 14. MEAN_LENGTH_LANDG: mean length of landed fish at that age, (cm, precision in mm=1 digits after the decimal). If no age specific information available write "NK".

F. Landings biological data (length based) for 2015, 2016 and 2017. Please ensure that data entries are fully consistent with coding given in the Appendixes.

- COUNTRY: to be given according to the code list provided in Appendix 1. Missing values not allowed.
- 2. YEAR: to be given in four digits, like 2004. Missing values not allowed.
- 3. DOMAIN_LANDINGS: text in format specified in Appendix 7. Missing values not allowed.
- 4. SPECIES: to be given according to the FAO three alpha code list, see Appendix 11. Missing values not allowed.
- 5. TOTWGHTLANDG: estimated landings in tonnes. Precision to 3 digits after the decimal (nearest kg). Missing values not allowed.
- 6. NO_SAMPLES_LANDG: the number of TRIPS should be given that relate to landings only; a number should be given only if it relates to this domain; otherwise "NK" should be given.
- 7. NO_LENGTH_MEASUREMENTS_LANDG: the number of length measurements, from within the domain, should be given that relate to landings only; a number should be given only if it relates to this domain; otherwise "NK" should be given.
- 8. LENGTH_UNIT: unit of length classes, "mm"=millimetre, "cm"=centimetre. If length data not available write 'NK'.
- 9. MIN_LENGTH: integer: this is the minimum length in the data for this SPECIES-DOMAIN combination; if minimum length and maximum length are both "NK", no length based data are given; minimum length and maximum length must either both be "NK" or both be not "NK".
- 10. MAX_LENGTH: integer: this is the true maximum length in the data for this SPECIES-DOMAIN combination; if minimum length and maximum length are both "NK", no length based data are given; minimum length and maximum length must either both be "NK" or both be not "NK".
- 11. LENGTH: integer (MIN_LENGTH <= LENGTH <= MAX_LENGTH). If both MIN_LENGTH and MAX_LENGTH are "NK" write "NK".
- 12. NO_LENGTH_LANDG: number of fish landed at that length, (unit of individuals). If no length specific information available write "NK".

G. Effort data for 2015, 2016 and 2017. Data to be provided for all effort, both that from metiers selected for biological sampling and otherwise.

- COUNTRY: to be given according to the code list provided in Appendix 1. Missing values not allowed.
- 2. YEAR: to be given in four digits, like 2004. Missing values not allowed.
- 3. QUARTER: to be given as one digit, like 1, 2, 3, or 4. Missing values not allowed.
- 4. VESSEL_LENGTH: to be given according to the code list provided in Appendix 2. If not known put "NK".
- 5. FISHING_TECH: to be given according to the code list provided in Appendix 3. Missing values not allowed.
- 6. GEAR_TYPE: to be given according to the code list provided in Appendix 4. If not known put "NK".
- MESH_SIZE_RANGE: to be given according to the code list provided in Appendix 5. If not known put "NK".
- 8. METIER: to be given according to Appendix 6. If not known put "NK".
- 9. SUPRA_REGION: to be given according to the code list in Appendix 8. Missing values not allowed.
- 10. SUB REGION: to be given according to the code list in Appendix 8. If not known put "NK".
- 11. EEZ_INDICATOR: to be given according to the code list in Appendix 8. If not applicable put "NA" (see appendix 8). If not known put "NK" (assumed the case if SUB_REGION is not known).
- 12. GEO_INDICATOR: to be given according to the code list in Appendix 9. If not known put "NK".
- 13. SPECON_TECH: to be given according to Appendix 10, if SPECON is not applicable, "NA" should be given. If not known put "NK".
- TARGET_ASSEMBLAGE: to be given according to Appendix 6. If not known put "NK".
- 15. DEEP: Enter 'DEEP' or 'NA'. (i.e. all landings, discards and other biological parameters falling under the Deep Sea regulations should be indicated with 'DEEP'. If fishing is not falling under the Deep Sea regulations "NA" should be given.)⁵
- 16. TOTSEADAYS: nominal fishing activity should be given in days at sea; if nominal fishing activity is not available, "NK" should be given. For recommended calculation method of days at sea, see Appendix 14.
- 17. TOTKWDAYSATSEA: effort should be given in kW-days, i.e. engine power in kW times days at sea; if nominal effort is not available, "NK" should be given. For recommended calculation method of days at sea, see Appendix 14.
- 18. TOTGTDAYSATSEA: effort should be given in gross tonnage * days at sea; if not available, "NK" should be given. For recommended calculation method of days at sea, see Appendix 14.
- 19. TOTFISHDAYS: nominal fishing activity should be given in fishing days; if fishing days is not available, "NK" should be given. For recommended calculation method of fishing days, see Appendix 14.
- TOTKWFISHDAYS: effort should be given in kW-days, i.e. engine power in kW times fishing days; if not available, "NK" should be given. For recommended calculation method of fishing days, see Appendix 14.
- 21. TOTGTFISHDAYS: effort should be given in gross tonnage * fishing days; if not available, "NK" should be given. For recommended calculation method of fishing days, see Appendix 14
- 22. HRSEA: hours at sea (within the sub-region). If not available, "NK" should be given.
- 23. KWHRSEA: kW* hours at sea (within the sub-region). If not available, "NK" should be given.
- 24. GTHRSEA: gross tonnage * hours at sea (within the sub-region). If not available, "NK" should be given.
- 25. TOTVES: simple integer value of vessels conducting activity as defined in columns 3 to 14⁶. If the number is not known, "NK" should be given.
- 26. CONFIDENTIAL: If data considered subject to confidentiality enter "Y", otherwise enter "N". Missing values not allowed.

⁵ For data up to and including 2016: R(EC) No. 2347/2002. For data from 2017 R (EU) 2016/2336.

⁶ It is realised and accepted that if vessels use > 1 gear and/or fish in > 1 sub-region etc. in a quarter the total across categories will exceed the number of vessels in the fleet segment.

H. Landings data by rectangle for 2015, 2016 and 2017 in tonnes. Data to be provided for all landings, both those from metiers selected for biological sampling and otherwise⁷.

Please supply data using a latitude and longitude to fix the location. Subsequent presentation of data will use the c-squares schema (0.5 by 0.5 degree); see Appendix 13. If it is not possible to submit data at a finer spatial resolution to that required for Table A please do not submit data to this table.

- COUNTRY: to be given according to the code list provided in Appendix 1. Missing values not allowed.
- 2. YEAR: to be given in four digits, like 2004. Missing values not allowed.
- 3. QUARTER: to be given as one digit, like 1, 2, 3, or 4. Missing values not allowed.
- 4. VESSEL_LENGTH: to be given according to the code list provided in Appendix 2. If not known put "NK".
- 5. FISHING_TECH: to be given according to the code list provided in Appendix 3. Missing values not allowed.
- 6. GEAR_TYPE: to be given according to the code list provided in Appendix 4. If not known put "NK".
- 7. MESH_SIZE_RANGE: to be given according to the code list provided in Appendix 5. If not known put "NK".
- 8. METIER: to be given according to Appendix 6. If not known put "NK".
- SUPRA_REGION: to be given according to the code list in Appendix 8. Missing values not allowed.
- 10. SUB_REGION: to be given according to the code list in Appendix 8. If not known put "NK".
- 11. EEZ_INDICATOR: to be given according to the code list in Appendix 8. If not applicable put "NA" (see appendix 8). If not known put "NK" (assumed the case if SUB_REGION is not known).
- 12. GEO_INDICATOR: to be given according to the code list in Appendix 9. If not known put "NK".
- 13. SPECON_TECH: to be given according to Appendix 10. If SPECON is not applicable, "NA" should be given. If not known put "NK".
- 14. TARGET ASSEMBLAGE: to be given according to Appendix 6. If not known put "NK".
- 15. DEEP: Enter 'DEEP' or 'NA'. (i.e. all landings, discards and other biological parameters falling under the Deep Sea regulations should be indicated with 'DEEP'. If fishing is not falling under the Deep Sea regulations "NA" should be given.)⁸
- 16. RECTANGLE_TYPE: enter "05*05" or "05*1" or "1*1" or "5*5". Enter "05*05" if entries at 0.5*0.5 degree resolution (e.g. if related to GFCM squares); enter "05*1" if entries at 0.5 degree latitude by 1.0 degree longitude (e.g. if related to ICES rectangles); enter "1*1" if entries at 1.0*1.0 degree resolution (e.g. related to fisheries governed by the IOTC); enter "5*5" if entries at 5.0*5.0 degree resolution (e.g. related to fisheries governed by the ICCAT).
- 17. RECTANGLE_LAT: (Latitude in decimal degrees, precision to 0.25 degrees; see Appendix 13). Missing values not allowed.
- 18. RECTANGLE_LON: (Longitude in decimal degrees, precision to 0.25 degrees; see Appendix 13). Missing values not allowed.
- 19. SPECIES: to be given according to the FAO 3 alpha code list, see Appendix 11. Missing values not allowed.
- 20. TOTWGHTLANDG: estimated landings in tonnes, precision to 3 digits after the decimal (nearest kg). Missing values not allowed.
- 21. TOTVALLANDG: estimated total value of the landings in Euro. If not available "NK" should be given.
- CONFIDENTIAL: If data considered subject to confidentiality enter "Y", otherwise enter "N". Missing values not allowed.

⁷ For vessels required to complete and submit a fishing logbook it is mandatory to complete geographical area of capture to ICES Division and statistical rectangle in FAO area 27 and to GFCM geographical sub-area and statistical rectangle in FAO area 37, Commission implementing regulation (EU) 2015/1962.

For data up to and including 2016: R(EC) No. 2347/2002. For data from 2017 R (EU) 2016/2336.

I. Specific effort data by rectangle for 2015, 2016 and 2017 in units of fishing days. Data to be provided for all effort, both that from metiers selected for biological sampling and otherwise⁹.

Please supply data using a latitude and longitude to fix the location. Subsequent presentation of data will use the c-squares schema (0.5 by 0.5 degree); see Appendix 13. If it is not possible to submit data at a finer spatial resolution to that required for Table G please do not submit data to this table.

- COUNTRY: to be given according to the code list provided in Appendix 1. Missing values not allowed.
- 2. YEAR: to be given in four digits, like 2004. Missing values not allowed.
- 3. QUARTER: to be given as one digit, like 1, 2, 3, or 4. Missing values not allowed.
- 4. VESSEL_LENGTH: to be given according to the code list provided in Appendix 2. If not known put "NK".
- 5. FISHING_TECH: to be given according to the code list provided in Appendix 3. Missing values not allowed.
- 6. GEAR_TYPE: to be given according to the code list provided in Appendix 4. If not known put "NK"
- 7. MESH_SIZE_RANGE: to be given according to the code list provided in Appendix 5. If not known put "NK".
- 8. METIER: to be given according to Appendix 6. If not known put "NK".
- SUPRA_REGION: to be given according to the code list in Appendix 8. Missing values not allowed.
- 10. SUB_REGION: to be given according to the code list in Appendix 8. If not known put "NK".
- 11. EEZ_INDICATOR: to be given according to the code list in Appendix 8. If not applicable put "NA" (see appendix 8). If not known put "NK" (assumed the case if SUB_REGION is not known).
- 12. GEO_INDICATOR: to be given according to the code list in Appendix 9. If not known put "NK".
- 13. SPECON_TECH: to be given according to Appendix 10. If SPECON is not applicable, "NA" should be given. If not known put "NK".
- 14. TARGET ASSEMBLAGE: to be given according to Appendix 6. If not known put "NK".
- 15. DEEP: Enter 'DEEP' or 'NA'. (i.e. all landings, discards and other biological parameters falling under the Deep Sea regulations should be indicated with 'DEEP'. If fishing is not falling under the Deep Sea regulations "NA" should be given.)¹⁰
- 16. RECTANGLE_TYPE: enter "05*05" or "05*1" or "1*1" or "5*5". Enter "05*05" if entries at 0.5*0.5 degree resolution (e.g. if related to GFCM squares); enter "05*1" if entries at 0.5 degree latitude by 1.0 degree longitude (e.g. if related to ICES rectangles); enter "1*1" if entries at 1.0*1.0 degree resolution (e.g. related to fisheries governed by the IOTC); enter "5*5" if entries at 5.0*5.0 degree resolution (e.g. related to fisheries governed by the ICCAT).
- 17. RECTANGLE_LAT: Latitude in decimal degrees, precision to 0.25 degrees; see Appendix 13. Missing values not allowed.
- 18. RECTANGLE_LON: Longitude in decimal degrees, precision to 0.25 degrees; see Appendix 13. Missing values not allowed.
- 19. EFFECTIVE_EFFORT: fishing days. For recommended calculation method see Appendix 14. Missing values not allowed.
- CONFIDENTIAL: If data considered subject to confidentiality enter "Y", otherwise enter "N". Missing values not allowed.

⁹ For vessels required to complete and submit a fishing logbook it is mandatory to complete geographical area of capture to ICES Division and statistical rectangle in FAO area 27 and to GFCM geographical sub-area and statistical rectangle in FAO area 37, Commission implementing regulation (EU) 2015/1962.

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For data up to and including 2016: R(EC) No. 2347/2002. For data from 2017 R (EU) 2016/2336.

J. Capacity and fleet segment specific effort data for 2015, 2016 and 2017.

- COUNTRY: to be given according to the code list provided in Appendix 1. Missing values not allowed.
- 2. YEAR: to be given in four digits, like 2004. Missing values not allowed.
- 3. VESSEL_LENGTH: to be given according to the code list provided in Appendix 2. If not known put "NK".
- 4. FISHING_TECH: to be given according to the code list provided in Appendix 3. Missing values not allowed.
- SUPRA_REGION: to be given according to the code list in Appendix 8. Missing values not allowed.
- 6. GEO_INDICATOR: to be given according to the code list in Appendix 9. If not known put "NK".
- 7. TOTTRIPS: simple integer. Total of trips by a fishing vessel from a land location to a landing place, excluding non-fishing trips. If not known put "NK".
- 8. TOTKW: nominal fishing capacity to be given in kW. If nominal fishing capacity in kW is not available, "NK" should be given.
- 9. TOTGT: nominal fishing capacity to be given in gross tonnage. If nominal fishing capacity in GT is not available, "NK" should be given.
- 10. TOTVES: simple integer value of vessels in the fleet segment, (fleet segment equals combination of fishing technique category and vessel length category); if the number is not available, "NK" should be given.
- 11. AVGAGE: average age of the vessels in the fleet segment, (fleet segment equals combination of fishing technique category and vessel length category); if the number is not available, "NK" should be given.
- 12. AVGLOA: Average length over all (in metres) of the vessels in the fleet segment, (fleet segment equals combination of fishing technique category and vessel length category); if the number is not available, "NK" should be given.
- 13. MAXSEADAYS: The average number of days at sea of the top 10 most active vessels in a fleet segment), if the number is not available, "NK" should be given.

Country coding

COUNTRY	CODE
Belgium	BEL
Bulgaria	BGR
Croatia	HRV
Cyprus	CYP
Denmark	DNK
Estonia	EST
Finland	FIN
France	FRA
Germany	DEU
Greece	GRC
Ireland	IRL
Italy	ITA
Latvia	LVA
Malta	MLT
Lithuania	LTU
Netherlands	NLD
Poland	POL
Portugal	PRT
Romania	ROU
Slovenia	SVN
Spain	ESP
Sweden	SWE
United Kingadana	

United Kingdom

United Kingdom (England and Wales)	ENG
United Kingdom (Alderny/Sark/Herm)	GBC
United Kingdom (Guernsey)	GBG
United Kingdom (Jersey)	GBJ
United Kingdom (Isle of Man)	IOM
United Kingdom (Northern Ireland)	NIR
United Kingdom (Scotland)	sco

Appendix 2 Vessel length coding

Member States are requested to submit data according to the following segmentation

Fishing in the Baltic Sea

Vessel length classes (length over all)	Code
Length over all shorter than 10 m.	VL0010
Length over all of 10 m. to shorter than 12 m.	VL1012
Length over all of 12 m. to shorter than 18 m.	VL1218
Length over all of 18 m. to shorter than 24 m.	VL1824
Length over all of 24 m. to shorter than 40 m	VL2440
Length over all of 40 m. or longer	VL40XX

Fishing in the Mediterranean

Vessel length classes (length over all)	Code
Length over all shorter than 6 m.	VL0006
Length over all of 6 m. to shorter than 12 m.	VL0612
Length over all of 12 m. to shorter than 18 m.	VL1218
Length over all of 18 m. to shorter than 24 m.	VL1824
Length over all of 24 m. to shorter than 40 m	VL2440
Length over all of 40 m. or longer	VL40XX

Fishing effort regimes in all other waters

Vessel length classes (length over all)	Code
Length over all shorter than 10 m.	VL0010
Length over all of 10 m. to shorter than 12 m.	VL1012
Length over all of 12 m. to shorter than 18 m.	VL1218
Length over all of 18 m. to shorter than 24 m.	VL1824
Length over all of 24 m. to shorter than 40 m	VL2440
Length over all of 40 m. or longer	VL40XX

Fishing Technique coding

Description	Code to be used when answering the data call
Drift and/or fixed netters	DFN
Dredgers	DRB
Demersal trawlers and/or demersal seiners	DTS
Vessels using pots and/or traps	FPO
Vessels using hooks	нок
Vessel using other active gears	MGO
Vessels using polyvalent active gears only	MGP
Vessels using passive gears only for vessels < 12m	PG
Vessels using other passive gears	PGO
Vessels using polyvalent passive gears only	PGP
Vessels using active and passive gears	PMP
Purse seiners	PS
Pelagic trawlers	TM
Beam trawlers	ТВВ
Inactive vessels ¹¹	INACTIVE

¹¹ For use for Table J (Capacity) only.

GEAR_TYPE coding

Gear classes	Description	Gear code to be used when answering the data call
DREDGES	Boat dredges	DRB
DREDGES	Mechanised dredges including suction dredges	HMD
DREDGES	Hand dredges	DRH
GILLNETS AND ENTANGLING NETS	Driftnets	GND
GILLNETS AND ENTANGLING NETS	Set gillnets (anchored)	GNS
GILLNETS AND ENTANGLING NETS	Encircling gillnets	GNC
GILLNETS AND ENTANGLING NETS	Trammel nets	GTR
GILLNETS AND ENTANGLING NETS	Combined gillnets-trammel nets	GTN
LIFT NETS	Boat-operated lift nets	LNB
LIFT NETS	Shore-operated stationary lift nets	LNS
HOOKS AND LINES	Handlines and pole-lines (mechanised)	LHM
HOOKS AND LINES	Handlines and pole-lines (hand-operated)	LHP
HOOKS AND LINES	Drifting longlines	LLD
HOOKS AND LINES	Set longlines	LLS
HOOKS AND LINES	Troll lines	LTL
SEINE NETS	Danish seines (Anchored seine)	SDN
SEINE NETS	Pair seines	SPR

SEINE NETS	Scottish seines (Fly shooting seine)	SSC
SEINE NETS	Beach seines	SB
SEINE NETS	Boat seines	SV
SURROUNDING NETS	Purse seines	PS
SURROUNDING NETS	Lampara nets	LA
TRAPS	Pots and Traps	FPO
TRAPS	Stationary uncovered pound nets	FPN
TRAPS	Fyke nets	FYK
TRAWLS	Bottom otter trawl	ОТВ
TRAWLS	Otter twin trawl	отт
TRAWLS	Bottom pair trawl	РТВ
TRAWLS	Midwater otter trawl	ОТМ
TRAWLS	Pelagic pair trawl	PTM
TRAWLS	Beam trawl	ТВВ
No Gear	e.g shell fishing by hand	NO
Not Known		NK

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Appendix 5 Mesh size coding

Specifies recorded mesh size and whether cod end contains diamond mesh or square mesh.

If there is no lower limit to the mesh size range the first integer is '00'

If there is no upper limit to the mesh size range the last integer is replaced by 'XX'

Gear type	Code
Diamond mesh	<integer>D<integer></integer></integer>
Square mesh	<integer>S<integer></integer></integer>
Not applicable	NA ¹

Not applicable NA¹

Valid for gear codes DRB, HMD, DRH, LHM, LHP, LLD, LLS, LTL, FPO.

Permitted mesh size ranges

Mediterranean and Black Sea	
All GSA areas	
MESH_SIZE_RANGE	CODE
Diamond mesh < 14 mm	00D14
Diamond mesh >=14 mm and < 16 mm	14D16
Diamond mesh >=16 mm and < 20 mm	16D20
Diamond mesh >=20 mm and < 40 mm	20D40
Diamond mesh >=40 mm and < 50 mm	40D50
Diamond mesh >=50 mm and < 100 mm	50D100
Diamond mesh >=100 mm and < 400 mm	100D400
Diamond mesh >=400 mm	400DXX
Square mesh < 40 mm	00S40
Square mesh >= 40 mm	40SXX

Baltic	
SUPRA REGION 27, SUB REGIONS ICES subdivisions 22 to 32	
MOBILE	
MESH_SIZE_RANGE	CODE
Diamond mesh < 16 mm	00D16
Diamond mesh >=16 mm and < 32 mm	16D32
Diamond mesh >=32 mm and < 90 mm	32D90
Diamond mesh >=90 mm and < 105 mm	90D105
Diamond mesh >=105 mm and < 110 mm	105D110
Diamond mesh >=110 mm	110DXX
PASSIVE	
Diamond mesh < 16 mm Diamond mesh	00D16
>=16 mm and < 32 mm	16D32
Diamond mesh >=32 mm and < 90 mm	32D90
Diamond mesh >=90 mm and < 110 mm	90D110
Diamond mesh >=110 mm and < 157 mm	110D157
Diamond mesh >=157 mm	157DXX

North Sea	
ICES sub-area IV and divisions IIa and IIIa	
MOBILE	
MESH_SIZE_RANGE	CODE
Diamond mesh < 16 mm	00D16
Diamond mesh >=16 mm and < 32 mm	16D32
Diamond mesh >=32 mm and < 80 mm	32D80
Diamond mesh >=80 mm and < 100 mm	80D100
Diamond mesh >=100 mm and < 110 mm	100D110
Diamond mesh >=110 mm and < 120 mm	110D120
Diamond mesh >=120 mm	120DXX
Square mesh >=70 mm and < 90 mm	70S90
PASSIVE	
Diamond mesh < 10 mm >=10 mm and <	00D10
31 mm	10D31
Diamond mesh >=31 mm and < 50 mm	31D50
Diamond mesh >=50 mm and < 71 mm	50D71
Diamond mesh >=71 mm and < 100 mm	71D100
Diamond mesh >=100 mm and < 120 mm	100D120
Diamond mesh >=120 mm and < 220 mm	120D220
Diamond mesh >=220 mm and < 250 mm	220D250
Diamond mesh >=250 mm	250DXX

North Western Waters	
ICES sub-areas I, V, VI, VII, XII and XIV	
MOBILE	
MESH_SIZE_RANGE	CODE
Diamond mesh < 16 mm Diamond mesh	00D16
>=16 mm and < 32 mm	16D32
Diamond mesh >=32 mm and < 70 mm	32D70
Diamond mesh >=70 mm and < 80 mm	70D80
Diamond mesh >=80 mm and < 100 mm	80D100
Diamond mesh >=100 mm and < 110 mm	100D110
Diamond mesh >=110 mm and < 120 mm	110D120
Diamond mesh >=120 mm	120DXX
PASSIVE	
Diamond mesh < 50 mm >=50 mm and <	00D50
90 mm	50D90
Diamond mesh >=90 mm and < 100 mm	90D100
Diamond mesh >=100 mm and < 120 mm	100D120
Diamond mesh >=120 mm and < 130 mm	120D130
Diamond mesh >=130 mm and < 150 mm	130D150
Diamond mesh >=150 mm and < 220 mm	150D220
Diamond mesh >=220 mm and < 250 mm	220D250
Diamond mesh >=250 mm	250DXX

South Western Waters	
ICES sub-areas VIII, IX and X and all CECAF areas	
ALL GEARS	
MESH_SIZE_RANGE	CODE
Diamond mesh < 16 mm >=16 mm and <	00D16
20 mm	16D20
Diamond mesh >=20 mm and < 40 mm	20D40
Diamond mesh >=40 mm and < 55 mm	40D55
Diamond mesh >=55 mm and < 60 mm	55D60
Diamond mesh >=60 mm and < 65 mm	60D65
Diamond mesh >=65 mm and < 70 mm	65D70
Diamond mesh >=70 mm and < 100 mm	70D100
Diamond mesh >=100 mm	100DXX

Outermost Regions	
All areas not covered in above tables	
ALL GEARS	
MESH_SIZE_RANGE	CODE
Diamond mesh < 16 mm 14 mm and < 20	00D14
mm	14D20
Diamond mesh >= 20 mm and < 40 mm	20D40
Diamond mesh >= 40 mm and < 45 mm	40D45
Diamond mesh >= 45 mm and < 50 mm	45D50
Diamond mesh >= 50 mm and < 65 mm	50D65
Diamond mesh >= 65mm and < 100 mm	65D100
Diamond mesh >=100 mm	100DXX

Appendix 6 Métier definitions

All regions excluding external fleet

Métier definitions to conform to those agreed by the relevant RCMs. A list of currently accepted codes is provided from the data submission web site. The following is for reference only:

The metier definitions follow the recommendation of STECF (report JRC 49816) on definitions consistent with level 6 of the Commission Decision 2010/93. The labels should follow the format

Gear type_Target assemblage_Mesh size (range)_Selective device_Mesh size (range) in the selective device

Each field within the label is connected by an underscore.

Target assemblage codes:

G 1	D
Code	Description
ANA	Anadromous
CAT	Catadromous
CEP	Cephalopods
CRU	Crustaceans
DEF	Demersal fish
DWS	Deep-water species
FIF	Finfish
FWS	Freshwater species
GLE	Glass eel
LPF	Large pelagic fish
MCD	Mixed crustaceans and demersal fish
MCF	Mixed cephalopods and demersal fish
MDD	Mixed demersal and deepwater species
MOL	Molluscs
MPD	Mixed pelagic and demersal fish
SLP	Small and large pelagic fish
SPF	Small pelagic fish

Note: Target assemblage is used both as part of the metier definition and as a stand-alone entry in several tables. If target assemblage is not known ('NK') then the metier should be considered unknown, i.e. if TARGET_ASSEMBLAGE = NK then METIER = NK. NK is not accepted as a part of the long metier definition. If the metier definition is known, then the same target assemblage code must be entered in the target assemblage field.

Selective device codes:

Code	Description
0	Not mounted
1	Exit window / Selection panel
2	Grid

Appendix 7 Domain definitions

Domains refer to the group of vessels used to calculate estimates (discards, numbers at age, numbers at length) by a country. The domain may or may not be equivalent to a métier.

Domain definitions are likely to be very country specific but the following format for their presentation to this data call is requested in the interest of obtaining the maximum information possible (on the constitution of the domain) from the name itself.

Countrycode(s)_quarter(s)_subregion(s)_geartype(s)_targetassemblage(s)_meshsizerange_selectivedevice(s)_meshrangeofselectivedevice_vessellength(s)_species_commercialcategory

Each field (county code(s), subregion(s) etc.) within the label is connected by an underscore.

If there are multiple entries within a field e.g. multiple subregions, connect by a dash "-".

- 1) Country code: as in appendix 1.
- 2) Quarter: insert "all" if annual data. If data aggregated quarterly, indicate the guarter.
- Subregion: if domain covers the whole supra-region, or unknown sub-regions within a supra-region, enter the supra-region code. Otherwise enter sub-region code(s) as in appendix 8.
- 4) Gear type: enter gear code(s) as in appendix 4.
- 5) Target assemblage: code(s) as used in metier definitions (appendix 6).
- 6) Mesh size range: insert "all" if all mesh sizes are included. Otherwise give minimum and maximum meshes in the form <minimum mesh><mesh type><maximum mesh>, e.g. 70D90 for diamond mesh between 70 and 90mm (see appendix 5). If not applicable (e.g. longlines) put "NA".
- Selectivity device: code(s) as used in metier definitions (appendix 6). If not applicable put "NA".
- Selective device mesh range: single number, e.g. 120 for 120mm device. If not applicable put "NA".
- 9) Vessel length: insert "all" if all vessel lengths included. Otherwise enter code(s) as in appendix 2.
- 10) Species: insert "all" if same domain is used for multiple species. If domain used for one or two species enter code(s) as in appendix 11.
- 11) Commercial category: If not known put "NK". If not applicable put "NA". Otherwise free text.

Appendix 8 Area coding

Note: Every attempt has been made to request area codes using the exact same notation as used in FAO 'Fishing Areas Fact Sheets' http://www.fao.org/fishery/area/search/en

Supra region

Supra region is used as part of a fleet segment definition. It should therefore relate to the *predominant* supra region of the vessels in the fleet segment. It is also possible to combine supra-region code with sub-region codes of a different supra-region, e.g. supra-region = 27 (most fishing took place in supra-region 27) but sub-region = GSA1 (the data entry relates to fishing in sub-region GSA1).

FAO major fishing area	Supra Region Code
27	AREA27
37	AREA37
All other major fishing areas	OFR

Sub region and EEZ

Baltic Sea

IBSFC areas for Baltic	Sub Region Codes to be used in relation to the compulsory provisions of the Commission Decisions	Codes to be used in relation to the gentlemen agreement reached between the DG Mare and the Member States about the evaluation of the fishing effort regimes	
	2010/93/EU and 2016/1251/EU	Sub Region	EEZ Indicator
III.c.22	27.3.c.22		NA
III.c.23	27.3.b.23		NA
III.c.24	27.3.d.24		NA
III.c.25	27.3.d.25		NA
III.c.26	27.3.d.26		NA
III.c.27	27.3.d.27		NA
III.c.28.1		27.3.d.28.1	NA
III.c.28.2		27.3.d.28.2	NA
III.d.29	27.3.d.29		NA
III.d.30	27.3.d.30		NA
III.d.31	27.3.d.31		NA
III.d.32	27.3.d.32		NA

North Sea, Skagerrak, Kattegat and Eastern Channel

ICES statistical areas	Sub Region Codes to be used in relation to the compulsory provisions of the Commission Decisions 2010/93/EU and 2016/1251/EU	Codes to be used in relation to the gentlemen agreement reached between the DG Mare and the Member States about the evaluation of the fishing effort regimes Sub EEZ Indicator Region	
	2010/93/EU and 2016/1251/EU		
2a EU waters		27.2.a	EU
3.a.N (Skagerrak)		27.3.a.20	NA
3.a.S (Kattegat)		27.3.a.21	NA
4a	27.4.a		NA
4b	27.4.b		NA
4c	27.4.c		NA
7.d ¹²	27.7.d		NA

¹² 7.d is included in both the North Sea and North Western Waters tables as it is unclear which technical regulations best apply.

North Western Waters

ICES statistical areas	Sub Region Codes to be used in relation to the compulsory provisions of the Commission Decisions	gentlemen agre between the DO States about th	Codes to be used in relation to the entlemen agreement reached etween the DG Mare and the Member states about the evaluation of the shing effort regimes	
	2010/93/EU and 2016/1251/EU	Sub Region	EEZ Indicator	
1 RFMO		27.1.a	RFMO	
1 COAST		27.1.b	COAST	
2a non EU waters		27.2.a	COAST	
		27.2.a	RFMO	
2b non EU waters		27.2.b	COAST	
		27.2.b	RFMO	
5.a	27.5.a		NA	
5.b EU waters		27.5.b	EU ¹⁷	
5.b non EU waters		27.5.b	COAST	
		27.5.b	RFMO	
6.a	27.6.a		NA	
6.b EU waters		27.6.b	EU	
6.b non EU waters		27.6.b	RFMO	
7.a	27.7.a ¹³		NA	
7.b	27.7.b ¹⁴		NA	
7.c EU Waters		27.7.c	EU	
7.c non EU Waters		27.7.c	RFMO	
7.d	27.7.d		NA	
7.e	27.7.e		NA	
7.f	27.7.f		NA	
7.g	27.7.g ¹⁵		NA	
7.h	27.7.h ¹⁶		NA	
7.j EU waters		27.7.j	EU ¹⁸	
7.j non EU waters		27.7.j	RFMO	
7.k EU waters		27.7.k	EU	

¹³ The ICES statistical rectangle of ICES division 7a west of 7degrees west and corresponding to the BSA shall be included.

 $^{^{14}}$ ICES statistical rectangles of ICES division 7b and corresponding to the BSA shall be included.

¹⁵ ICES statistical rectangles of ICES division 7g and corresponding to the BSA shall be included.

¹⁶ ICES statistical rectangles of ICES division 7h and corresponding to the BSA shall be included.

 $^{^{17}}$ 5b EU to be considered as covering the following ICES statistical rectangles: 49D6, 49D7, 49D8, 49D9, 49E0, 49E1, 49E2, 49E3, 49E4, 50E5.

¹⁸ ICES statistical rectangles of ICES division 7j and corresponding to the BSA shall be included.

7.k non EU waters		27.7.k	RFMO
12	27.12		NA
14.a	27.14.a		NA
14.b		27.14.b	COAST
		27.14.b	RFMO

The following BSA defnition only to be used for tables A and G.

Data for the BSA represents a duplication of data supply to accommodate an overlapping area definition, i.e. the BSA area overlaps fractions of ICES divisions 7a, 7b, 7g, 7h and 7j

To be considered as covering the following ICES statistical rectangles: 35D8, 35D9, 35E0 35E1	Biologically Sensitive Area	BSA	NA
34D8, 34D9, 34E0, 34E1, 33D8, 33D9, 33E0, 33E2, 32D8, 32D9, 32E0, 32E1, 32E2, 31D8, 31D9, 31E0, 31E1, 31E2, 30D9, 30E0, 30E1, 30E2, 29D9, 29E0, 29E1, 29E2, 28D9, 28E0, 28E1, 28E2.	as covering the following ICES statistical rectangles: 35D8, 35D9, 35E0, 35E1, 34D8, 34D9, 34E0, 34E1, 33D8, 33D9, 33E0, 32E2, 32D8, 32D9, 32E2, 31D8, 31D9, 31E1, 31E2, 30D9, 30E1, 30E2, 29D9, 29E0, 29E1, 29E2, 28D9, 28E0,		

South Western Waters

ICES statistical areas	Codes to be used in relation to the compulsory provisions	Codes to be used in relation to the gentlemen agreement reached betwee the DG Mare and the Member States about the evaluation of the fishing effort regimes	
	of the Commission Decisions 2010/93/EU and 2016/1251/EU	Sub Region	EEZ Indicator
8.a	27.8.a		NA
8.b	27.8.b		NA
8.c	27.8.c		NA
8.d EU waters		27.8.d	EU
8.d non EU waters		27.8.d	RFMO
8.e EU waters		27.8.e	EU
8.e non EU waters		27.8.e	RFMO
9.a	27.9.a		NA
9.b EU waters		27.9.b	EU
9.b non EU waters		27.9.b	RFMO
10.a EU waters		27.10.a	EU
10.a non EU waters		27.10.a	RFMO
10.b		27.10.b	NA

GFCM

FAO statistical areas Sub Region EEZ Indicator Codified GFCM Geographical Sub-Areas as defined in Resolution GFCM/33/2009/2 ¹⁹ NA Northern Alboran Sea GSA1 NA Alboran Island GSA2 NA Southern Alboran Sea GSA3 NA Algeria GSA4 NA Balearic Island GSA5 NA Northern Spain GSA6 NA Gulf of Lion GSA7 NA Corsica Island GSA8 NA Ligurian and North Tyrrhenian Sea GSA9 NA South Tyrrhenian Sea GSA10 NA Sardinia (west) GSA11.1 NA Sardinia (east) GSA11.2 NA Sardinia (ast) GSA11.2 NA Sardinia (GSA12 NA NA Gulf of Hammamet GSA13 NA Gulf of Gabes GSA14 NA Malta Island GSA15 NA South of Sicily GSA16 NA Northern Adriatic GSA17 NA Southern Ionian Sea GSA19 NA Eastern Ionian Sea GSA20 NA Southern Ionian Sea GSA21 NA
Areas as defined in Resolution GFCM/33/2009/2 ¹⁹
Alboran Island Southern Alboran Sea GSA3 Algeria GSA4 Balearic Island GSA5 NA Northern Spain GSA6 GUlf of Lion GSA7 Corsica Island Ligurian and North Tyrrhenian Sea South Tyrrhenian Sea GSA10 Sardinia (west) GSA11.1 Sardinia (east) GSA11.2 Sardinia GSA11 NA Northern Tunisia GSA12 NA GUlf of Hammamet GSA13 Gulf of Gabes GSA14 MA Malta Island GSA15 NA South of Sicily NA Southern Adriatic Sea GSA19 Eastern Ionian Sea GSA2 NA
Southern Alboran Sea GSA3 NA Algeria GSA4 NA Balearic Island GSA5 NA Northern Spain GSA6 NA Gulf of Lion GSA7 NA Corsica Island GSA8 NA Ligurian and North Tyrrhenian Sea GSA9 NA South Tyrrhenian Sea GSA10 NA Sardinia (west) GSA11.1 NA Sardinia (east) GSA11.2 NA Sardinia GSA11 NA Northern Tunisia GSA12 NA Gulf of Hammamet GSA13 NA Gulf of Gabes GSA14 NA Malta Island GSA15 NA South of Sicily GSA16 NA Northern Adriatic GSA17 NA Southern Adriatic Sea GSA18 NA Western Ionian Sea GSA19 NA Eastern Ionian Sea GSA20 NA
Algeria GSA4 NA Balearic Island GSA5 NA Northern Spain GSA6 NA Gulf of Lion GSA7 NA Corsica Island GSA8 NA Ligurian and North Tyrrhenian Sea GSA9 NA South Tyrrhenian Sea GSA10 NA Sardinia (west) GSA11.1 NA Sardinia (east) GSA11.2 NA Sardinia GSA11 NA Northern Tunisia GSA12 NA Gulf of Hammamet GSA13 NA Gulf of Gabes GSA14 NA Malta Island GSA15 NA South of Sicily GSA16 NA Northern Adriatic GSA17 NA Southern Adriatic Sea GSA18 NA Western Ionian Sea GSA19 NA Eastern Ionian Sea GSA20 NA
Balearic Island Northern Spain GSA6 NA Gulf of Lion GSA7 Corsica Island Ligurian and North Tyrrhenian Sea South Tyrrhenian Sea GSA10 Sardinia (west) GSA11.1 Sardinia (east) GSA11 NA Northern Tunisia GSA12 Gulf of Hammamet GSA13 Gulf of Gabes GSA14 Malta Island GSA15 South of Sicily NA Southern Adriatic GSA17 Southern Adriatic Sea GSA19 Eastern Ionian Sea GSA20 NA
Northern Spain Gulf of Lion GSA7 Corsica Island GSA8 Ligurian and North Tyrrhenian Sea South Tyrrhenian Sea GSA10 Sardinia (west) GSA11.1 Sardinia (east) GSA11.2 Sardinia GSA11 NA Northern Tunisia GSA12 Gulf of Hammamet GSA13 Gulf of Gabes GSA14 Malta Island GSA15 South of Sicily Southern Adriatic GSA17 Southern Adriatic Sea GSA19 Eastern Ionian Sea GSA7 NA
Gulf of Lion Corsica Island GSA8 Ligurian and North Tyrrhenian Sea South Tyrrhenian Sea GSA10 Sardinia (west) GSA11.1 Sardinia (east) Sardinia GSA11 NA Northern Tunisia GSA12 Gulf of Gabes GSA14 Malta Island South of Sicily NA Southern Adriatic GSA17 Southern Adriatic Sea GSA18 Western Ionian Sea GSA20 NA
Corsica Island Ligurian and North Tyrrhenian Sea South Tyrrhenian Sea GSA10 Sardinia (west) Sardinia (east) Sardinia GSA11.2 Sardinia Sardinia GSA11 NA Northern Tunisia GSA12 Sulf of Hammamet GSA13 Gulf of Gabes GSA14 Malta Island South of Sicily NA Northern Adriatic Sea GSA16 Western Ionian Sea GSA19 Eastern Ionian Sea GSA20 NA NA NA NA NA NA NA NA NA NA NA NA NA
Ligurian and North Tyrrhenian Sea South Tyrrhenian Sea GSA10 Sardinia (west) GSA11.1 Sardinia (east) Sardinia GSA11 NA Northern Tunisia GSA12 Gulf of Hammamet GSA13 Gulf of Gabes GSA14 Malta Island South of Sicily Northern Adriatic GSA17 Southern Adriatic Sea Western Ionian Sea GSA20 NA NA NA NA NA NA NA NA NA N
Tyrrhenian Sea South Tyrrhenian Sea GSA10 Sardinia (west) GSA11.1 Sardinia (east) GSA11.2 NA Nardinia NA Northern Tunisia GSA12 Gulf of Hammamet GSA13 Gulf of Gabes GSA14 Malta Island South of Sicily Northern Adriatic GSA17 Southern Adriatic Sea GSA18 Western Ionian Sea GSA20 NA NA NA NA NA NA NA NA NA N
Sardinia (west) Sardinia (east) GSA11.2 NA Sardinia GSA11 NA Northern Tunisia GSA12 Gulf of Hammamet GSA13 Gulf of Gabes GSA14 Malta Island South of Sicily Northern Adriatic GSA17 Southern Adriatic Sea GSA18 Western Ionian Sea GSA20 NA
Sardinia (east) Sardinia GSA11 NA Northern Tunisia GSA12 NA Gulf of Hammamet GSA13 Gulf of Gabes GSA14 Malta Island South of Sicily Northern Adriatic GSA17 Southern Adriatic Sea GSA18 Western Ionian Sea GSA20 NA
Sardinia GSA11 NA Northern Tunisia GSA12 NA Gulf of Hammamet GSA13 NA Gulf of Gabes GSA14 NA Malta Island GSA15 NA South of Sicily GSA16 NA Northern Adriatic GSA17 NA Southern Adriatic Sea GSA18 NA Western Ionian Sea GSA19 NA Eastern Ionian Sea GSA20 NA
Northern Tunisia GSA12 Gulf of Hammamet GSA13 Gulf of Gabes GSA14 Malta Island South of Sicily Northern Adriatic GSA17 Southern Adriatic Sea GSA18 Western Ionian Sea GSA20 NA
Gulf of Hammamet GSA13 Gulf of Gabes GSA14 Malta Island GSA15 South of Sicily Northern Adriatic GSA17 Southern Adriatic Sea GSA18 Western Ionian Sea GSA20 NA NA NA NA NA NA NA NA NA N
Gulf of Gabes GSA14 Malta Island GSA15 NA South of Sicily Northern Adriatic GSA17 Southern Adriatic Sea GSA18 Western Ionian Sea GSA19 Eastern Ionian Sea GSA20 NA
Malta IslandGSA15NASouth of SicilyGSA16NANorthern AdriaticGSA17NASouthern Adriatic SeaGSA18NAWestern Ionian SeaGSA19NAEastern Ionian SeaGSA20NA
South of Sicily Northern Adriatic GSA17 Southern Adriatic Sea GSA18 Western Ionian Sea GSA19 Eastern Ionian Sea GSA20 NA NA NA NA NA NA
Northern Adriatic Southern Adriatic Sea GSA18 Western Ionian Sea GSA19 Eastern Ionian Sea GSA20 NA NA NA NA
Southern Adriatic Sea Western Ionian Sea GSA18 GSA19 Eastern Ionian Sea GSA20 NA NA
Western Ionian Sea GSA19 NA Eastern Ionian Sea GSA20 NA
Eastern Ionian Sea GSA20 NA
Southern Ionian Sea GSA21 NA
Aegean Sea GSA22 NA
Crete Island GSA23 NA
North Levant GSA24 NA
Cyprus Island GSA25 NA
South Levant GSA26 NA
Levant GSA27 NA
Marmara Sea GSA28 NA
Black Sea GSA29 NA
Azov Sea GSA30 NA

Resolution GFCM/33/2009/2 on the establishment of Geographical Sub-Areas in the GFCM area amending the resolution GFCM/31/2007/2 (http://www.fao.org/gfcm/data/map-geographical-subareas/en/).

CECAF

FAO statistical areas	Sub Region Codes to be used in relation to the compulsory provisions of the	Codes to be used in relation to the gentlemen agreement reached between the DG Mare and the Member States about the evaluation of the fishing effort regimes	
	Commission Regulation (EC) 216/2009	Sub Region	EEZ Indicator
34.1.1 EU waters		34.1.1	EU
34.1.1 non EU waters		34.1.1	COAST
34.1.2 EU waters		34.1.2	EU
34.1.2 non EU waters		34.1.2	COAST
		34.1.2	RFMO
34.1.3		34.1.3	COAST
		34.1.3	RFMO
34.2.0 EU waters		34.2.0	EU
34.2.0 non EU waters		34.2.0	COAST
		34.2.0	RFMO
34.3.1	34.3.1		NA
34.3.2	34.3.2		NA
34.3.3	34.3.3		NA
34.3.4	34.3.4		NA
34.3.5	34.3.5		NA
34.3.6	34.3.6		NA
34.4.1	34.4.1		NA
34.4.2	34.4.2		NA

ADITIONAL AREAS.

The level of area detail to be consistent with requirements specified in 93/2010, appendices 1 and 2.

NB: Areas identified above and below include seas subject to the International Convention for the Conservation of Atlantic Tunas.

NAFO (Northwest Atlantic) see also http://www.fao.org/fishery/area/Area21/en

FAO statistical areas	Sub Region Codes to be used in relation to the compulsory provisions of the	Codes to be used in relation to the gentlemen agreement reached between the DG Mare and the Member States about the evaluation of the fishing effort regimes	
	Commission Regulation (EC) 216/2009	Sub Region	EEZ Indicator
	21.0A		NA
	21.0B		NA
	21.1A		NA
	21.1B		NA
	21.1C		NA
	21.1D		NA
	21.1E		NA
	21.1F		NA
	21.2G		NA
	21.2H		NA
	21.2J		NA
	21.3K		NA
	21.3L		NA
	21.3M		NA
	21.3N		NA
	21.30		NA
	21.3P		NA
	21.4R		NA
	21.4S		NA
	21.4T		NA
	21.4V		NA
	21.4W		NA
	21.4X		NA
	21.5Y		NA
	21.5Z		NA
	21.6A		NA
	21.6B		NA
	21.6C		NA
	21.6D		NA
	21.6E		NA
	21.6F		NA
	21.6G		NA
	21.6H		NA

CCAMLR

FAO area 48 (Atlantic Antarctic) ; see also http://www.fao.org/fishery/area/Area48/en

FAO area 58 (Antarctic and Southern Indian Ocean) ; see also $\underline{\text{http://www.fao.org/fishery/area/Area58/en}}$

FAO area 88 (Antarctic); see also http://www.fao.org/fishery/area/Area88/en

FAO statistical areas	Sub Region Codes to be used in relation to the compulsory provisions of the	Codes to be used in relation to the gentlemen agreement reached between the DG Mare and the Member States about the evaluation of the fishing effort regimes	
	Commission Regulation (EC) 216/2009	Sub Region	EEZ Indicator
Peninsular	48.1		NA
South Orkney	48.2		NA
South Georgia	48.3		NA
South Sandwich	48.4		NA
Weddel Sea	48.5		NA
Bouvet	48.6		NA
			NA
Banzare Bank	58.4		NA
McDonald & Heard	58.5		NA
Crozet	58.6		NA
Marion-Edward	58.7		NA
			NA
Eastern Ross Sea	88.1		NA
Western Ross Sea	88.2		NA
Amundsen Sea	88.3		NA

IOTC
FAO area 51 (Indian Ocean, Western); see also http://www.fao.org/fishery/area/Area51/en

FAO area 57 (Indian Ocean, Eastern); see also http://www.fao.org/fishery/area/Area57/en

FAO statistical areas	Sub Region Codes to be used in relation to the compulsory provisions of the Commission	Codes to be used in relation to the gentlemen agreement reached betwee the DG Mare and the Member States about the evaluation of the fishing effort regimes	
	Regulation (EC) 216/2009	Sub Region	EEZ Indicator
Red Sea sub-area	51.1		NA
Gulf sub-area	51.2		NA
Western Arabian Sea sub-area	51.3		NA
Eastern Arabian Sea, Laccadive and Sri Lanka sub-area	51.4		NA
Somalia, Kenya and Tanzania sub-area	51.5		NA
Madagascar and Mozambique Channel sub-area	51.6		NA
Oceanic sub-area	51.7		NA
Mozambique	51.8		NA
Bay of Bengal	57.1		NA
Northern	57.2		NA
Central	57.3		NA
Oceanic	57.4		NA
Western Australia	57.5		NA
Southern Australia	57.6		NA

Other Areas

FAO statistical areas	Sub Region Codes to be used in relation to the compulsory provisions of the Commission	Codes to be used in relation to the gentlemen agreement reached between the DG Mare and the Member States about the evaluation of the fishing effort regimes	
	Regulation (EC) 216/2009	Sub Region	EEZ Indicator
FAO area 18 (Arcti	ic Sea)		_ I
See also http://www	v.fao.org/fishery/area/Area18/en		
Arctic Sea	18		NA
FAO area 31 (Atlar	ntic Western Central)	1	l
See also http://www	v.fao.org/fishery/area/Area31/en		
Atlantic, western central	31		NA
FAO area 41 (Atlar	ntic Southwest)	1	
See also Regulatio	n (EC) 216/2009		
Northern	41.1		NA
Central	41.2		NA
Southern	41.3		NA
FAO area 47 (Atlar	ntic Southeast)	1	
See also Regulatio	n (EC) 216/2009		
Orange river and Cape of Good Hope	47.1		NA
Agulhas	47.2		NA
SEAFO	47.A		NA
SEAFO	47.B		NA
SEAFO	47.C		NA
SEAFO	47.D		NA
FAO area 61 (Paci	fic Northwest)	•	1
See also http://www	v.fao.org/fishery/area/Area61/en		
Pacifc, Northwest	61		NA
FAO area 67 (Paci	fic Northeast)	•	
See also http://www	v.fao.org/fishery/area/Area67/en		
Pacific, Northeast	67		NA
FAO area 71 (Paci	fic Western Central)	•	,
See also http://www	v.fao.org/fishery/area/Area71/en		
Pacific, Western Central	71		NA

FAO area 77 (Pacific Eastern Central)				
See also http://www	See also http://www.fao.org/fishery/area/Area77/en			
Pacific, Eastern Central	77	NA		
FAO area 81 (Paci	fic Southwest)	,		
See also http://www	v.fao.org/fishery/area/Area81/en			
Pacific, Southwest	81	NA		
FAO area 87 (Paci	fic Southeast)			
See also http://www	v.fao.org/fishery/area/Area87/en			
Northern	87.1	NA		
Central	87.2			
Southern	87.3			

Appendix 9: Geographical Indicator and sub-national codes

Provision of this information is not compulsory.

Code to distinguish fishing fleets operating in outermost regions and fleets operating exclusively in non-EU waters (international waters + third countries including those with fishing partner agreements).

Name	Definition	Code
Non EU waters	More than 50% of activity occurs in non-EU waters	NEU
International waters exclusively	100% of activity occurs in non-EU waters	IWE
Madeira	Portuguese outermost region (autonomous region)	P2
Azores	Portuguese outermost region (autonomous region)	P3
Canaries	Spanish outermost region (autonomous region)	CN
Reunion	French outermost region (overseas department)	RE
Martinique	French outermost region (overseas department)	MQ
Mayotte	French outermost region (overseas department)	YT
Guadeloupe	French outermost region (overseas department)	GP
French Guiana	French outermost region (overseas department)	GF
Saint-Martin	French outermost region (since 2009)(overseas community)	MF
Saint-Barthélemy	French outermost region	BL
No geographical indicator	EU waters, i.e. EEZ of any EU member state	NGI

Coding of specific conditions related to Technical Measures

Condition	Code	
Baltic	1	
Gear equipped with a BACOMA	BACOMA	
Gear equipped with a T90	T90	
North Sea & Kattegat		
¹⁾ OTB, TBN ≥ 35mm equipped with selective grid with 19mm max bar spacing and unblocked fish outlet	GRID19	
¹⁾ OTB, TBN ≥ 70mm equipped with selective grid with 35mm max bar spacing	GRID35	
1) TBB 80-119mm with increased mesh size in the extension of the beam trawl, 'Flemish Panel'.	TBBFP	
¹⁾ OTB, OTT, TBN 90-119mm equipped with 'Seltra Panel'.	SELTRA	
²⁾ OTB, TBN ≥ 80mm equipped with a 'netgrid' selectivity device.	NETGRID	
³⁾ OTB, TBN ≥ 80mm constructed to 'SepNet' specification.	SEPNEP	
NWW		
⁴⁾ TBB 80-119mm with increased mesh size in the extension of the beam trawl, 'Flemish Panel'.	TBBFP	
SWW		
MED & BS		

- 1) Technical gear measure used to define vessels receiving a de-minimis exemption under Commission Delegated Regulation (EU) 2018/45
- 2) Technical gear measure used to define vessels receiving a survivability exemption under Commission Delegated Regulation (EU) 2018/45
- 3) Technical gear measure defined in Commission Delegated Regulation (EU) 2018/45 allowing derogation from Reg 850/98.
- 4) Technical gear measure used to define vessels receiving a de-minimis exemption under Commission Delegated Regulation (EU) 2018/46

Note: Definitions of the 'Seltra panel', 'Netgrid selectivity device', 'Flemish panel' and 'SepNep' can all be found in Commission Delegated Regulation (EU) 2018/45.

Species coding according to the FAO Fisheries and Aquaculture Statistics and Information Branch (FIAS) Alpha 3 code

http://www.fao.org/fishery/collection/asfis/en

NB: edition used is edition released February 2017²⁰. To include species with a code agreed after this release please contact JRC data submission team.

In addition, for landings where it is not possible to attach an FAO Alpha 3 code

Common nameAlpha-3 codeScientific name1. Other SpeciesOTHnot applicable

²⁰ Files available from the web site are 'ASFIS 6 languages_2017.xlsx and ASFIS_sp_Feb_2017.txt

Discard observer refusal rate

Definition of refusal rate is taken from SGPIDS 2013²¹

"the proportion of skippers who, having been successfully contacted ultimately failed to allow the observer to go on-board to obtain the sample. This refusal rate is calculated as the number of industry refusals divided by the number of sequential selections or approaches where contact was successfully made."

A successful contact is defined as a phone call to a vessel skipper being answered.

-

²¹ ICES CM 2013/ACOM:56

Enter latitude and longitude as real number to accuracy of 0.25 degrees.

Please supply latitude and longitude of the rectangle or square centre

e.g. ICES rectangle 01D9

RECTANGLE_LAT: 36.25

RECTANGLE LON: -10.50

An explanation why this is necessary is found below

Rectangle information will be converted to c-squares notation, and any plotting performed using the c-squares 0.5*0.5 degree grid system.

Format of c-squares notation

Туре	Accuracy	Format
string	0.5*0.5 degree	XXXX:XXX:X

The following is provided for information only (JRC will convert to c-square notation):

Conversion from GFCM, ICES, IOTC and ICCAT rectangle information.

c-squares at **0.5*0.5** degree resolution were chosen because it is directly equivalent to the square grid produced for the Mediterranien by GFCM and the nearest equivalent to the ICES rectangle grid²².

Points "on the line" are normally encoded within the next "higher" c-square, i.e. further away from the global origin. This implies effort and landings will be assigned to a different c-square depending on where in the ICES rectangle (or GFCM/IOTC/ICCAT square) the latitude and longitude are taken. Therefore, for consistency across member state data submissions the request is for the latitude and longitude of the centre of the rectangle/square.

C-squares notation

See http://www.cmar.csiro.au/csquares/spec1-1.htm for a description on how latitude and longitude values are converted to the c-squares notation. The following is selected text from that page.

https://circabc.europa.eu/faces/jsp/extension/wai/navigation/container.jsp?FormPrincipal:_idcl=FormPrincipal:_id1&FormPrincipal_SUBMIT=1&id=65d9a1a6-ac63-41cd-8ef6-9d5a638a7d80&javax.faces.ViewState=x64FG6y1N%2FOqmJe0nkW0vadUp8g%2FBGkqQJisVgpdA0FJIX2RFykmy97MQPHOVVTHcHZ%2BU7ks51%2FMYmtdWPCNz44D8kgU8k8LWF0N8sU5jxWyfUkppsCCm2XyBtEszMx33sUQNN%2FwAJXf6mLJtdAVn3vxsuo%3D

and file "StatRecGrids_130703ma.doc".

^{22 500}

"C-squares" (acronym for "concise spatial query and representation system") is a grid based global locator system freely available for use worldwide without royalty or licence.

C-squares incorporates the "global quadrant" notation of WMO squares, where the initial digit 1, 3, 5 or 7 indicates the global quadrant NE, SE, SW and NW, respectively.

C-squares takes as its starting point the ten degree global grid square notation referred to as WMO or World Meteorological Organization squares, as illustrated by the U.S. NODC (National Oceanographic Data Center). Since the c-squares notation is fully hierarchical, all smaller resolution c-squares retain these initial four digits which serve to indicate the ten degree global grid square within which they are located.

Individual c-squares take their nomenclature from the position of their two "minimum absolute" boundaries closest to the global origin (0 latitude, 0 longitude) in decimal degrees, with latitude preceding longitude, e.g. 10 in the case of a cell extending from +10 to +20 degrees, -10 in the case of a cell extending from -10 to -20 degrees.

Values representing the position of these "minimum" boundaries of latitude and longitude are then encoded within a succession of one or more "cycles", where the first cycle is four digits and comprises the (WMO squares notation) 10°×10° square identifier, and successive cycles (where present) are three digits long or (in the terminal case), optionally a single digit (an incomplete cycle). Successive cycles are separated by a colon character.

For example, for fishing conducted in ICES rectangle 01D9

- The rectangle is in the NW quadrant initial integer is 7 and conversion to c-squares proceeds using the latitude and longitude of the south east corner of the rectangle
- Latitude of south east corner of the rectangle is 36° N
- Longitude of south east corner of the rectangle is 10° W: c-squares code is 7301:360:1
- Absolute values of latitude in decimal degrees (i.e., regardless of sign) are represented by the second digit in every cycle – here the 3 and the 6.
- Absolute values of longitude in decimal degrees are represented by the third and fourth digits in the first cycle (representing hundreds then tens), and the third digit of successive cycles (units, tenths, hundredths, etc.). – here 0 hundreds and 1 ten and 0 units.
- The final digit is
 - 1 if the absolute value of the decimal Latitude and Longitude are both <0.5
 - 2 If decimal latitude is < 0.5 but decimal longiture ≥ 0.5
 - 3 If decimal latitude is ≥ 0.5 but decimal longiture < 0.5
 - 4 if both decimal Latitude and Longitude are ≥ 0.5

Days at Sea and Fishing days calculation

At a DCF Ad-Hoc workshop²³ a standardised way to calculate days at sea and fishing days was agreed. In addition a package²⁴, written in the 'R' programming language was written to allow countries to complete calculations in the agreed way.

To make use of the package it is necessary to have installed R version 3.3.2 or above and then to install the 'fecR' package.

Visit

https://CRAN.R-project.org/package=fecR

for details on the package. There is a reference manual and two vignettes to provide information on the package and how to use it.

To make use of the days at sea and fishing days calculation algorithm but without using the fecR package please refer to the workshop report.

Castro Ribeiro, C., Holmes, S., Scott, F., Berkenhagen, J., Demaneche, S., Prista, N., Reis, D., Reilly, T., Andriukaitiene, J., Aquilina, M., Avdič Mravlje, E., Calvo Santos, A., Charilaou, C., Dalskov, J., Davidiuk, I., Diamant, A., Egekvist, J., Elliot, M., Ioannou, M., Jakovleva, I. Kuzebski, E., Ozernaja, O., Pinnelo, D., Thasitis, I., Verlé, K., Vitarnen, J., Wójcik, I..Report of the 2nd Workshop on Transversal Variables. Nicosia, Cyprus. 22-26 February 2016. A DCF ad-hoc workshop. 109pp.EUR 27897; doi 10.2788/042271.

Finlay Scott, Nuno Prista and Thomas Reilly (2016). fecR: Fishing Effort Calculator in R. R package version 0.0.1. https://CRAN.R-project.org/package=fecR