

# Regional Coordination Groups: Intersessional Sub Group on Métier Issues 2021

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**Regional Coordination Group**  
Baltic Sea Region



**Regional Coordination Group**  
North Atlantic  
North Sea & Eastern Arctic

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# 1. Introduction

## Background

Since 2018, work has been ongoing to harmonize and standardize the methods and codes used when assigning métiers to transversal data. Reports can be found under <https://github.com/ices-eg/RCGs/tree/master/Metiers/Reports>.

In 2020, the RCG ISSG had an operational focus on métier list and development of a script to assign métiers. A métier list with suggested standardized and harmonized codes (especially with regards to mesh size ranges), and with references to métier codes uploaded to the RDB (2009-2017 data). Selection panel code numbers were suggested. Reference lists were revised, grouping areas to regions and species codes to target assemblage groups. The R script was further developed for assigning métier codes to transversal data, implementing the best practices agreed on and using an additional module that analyse vessel patterns.

## The 2021 work

In the September 2020 liaison meeting it was agreed by the NCs that the new codes for métiers and reference lists can be used and implemented by MS. It was noted that “the RCG ISSG on Métier issues have worked on a common list of métiers, that list will be incorporated into the RDBES. Whether the métier list also will be used for other systems/data calls is up to the data requester.”

The 2021 work in the subgroup has been with focus on test and implementation of métier codes and script as well as to make a manual describing reference lists, input format for the script and the script description in order to make it possible to implement with countries.

# 2. Tasks for the ISSG on Métier issues 2021

## Tasks

- Write a manual for use of the script and code lists and document the script with a flow chart.
- Further development on script
- Following and assisting on implementation of the new métier codes and script
- Compare the proposed métier list with EUMAP level 5
- Reformatting the new métier list to get an easier reference with the old métier codes
- Update métier code list, clarify connection between old and suggested métiers, provide reference lists if needed.
- Crosscheck EU MAP codes list with métier
- When data are uploaded with the new métier codes to the RDB/RDBES, this year's ToR 2 will become relevant: Further develop métier descriptions based on new métier codes

Ask RCG Med and Black Sea for participation

## 2.1 Highlights and questions for RCG's to consider

### Key points from the ISSG on Métier issues 2021

In 2021 the group focus was to produce a manual on the use of the script and reference lists used for assigning métiers to transversal data.

Addition of functions in the script to assign métiers where they were missing by the use of vessel pattern analysis to avoid "rare métiers" caused by catches of non-targeted species.

The group agreed to recommend that the new métier codes are to be requested for the ICES RDBES test data call in 2021, and for the ICES VMS and WGBYC datacalls and the STECF FDI data call in 2022.

#### **Main outcomes of the ISSG on Métier issues 2021**

- A manual with description of reference lists and the script is available at GitHub
- Further development of the script, including functions to assign métiers when missing and to conduct a vessel pattern analysis to avoid "rare" métiers. The reference lists were updated if needed.
- Test of script and test that the métier codes needed are in the list
- Métier list is updated when needed and forwarded to ICES vocabulary for the RDBES test data call
- Agreed if métiers need to be added in the future, it should be approved by the group.

#### **What needs to be decided**

- That the group continues supporting implementation of the method, script and approving métier codes.
- Can the group get access to RDBES CE/CL data when new métier codes have been uploaded for the test data call, for evaluation?

#### **Suggested for next step in intersessional work (tasks)**

- Follow up on and support implementation of métier codes and script (it should also be possible to include participants from outside EU). Approve and update métier list if new codes are needed.
- When data have been submitted for the RDBES test data call, the codes used can be evaluated (if the group can get access to RDBES CE/CL data) and métier descriptions can be made (following up on 2019 work within the ISSG) and, in the future, it may be further developed in collaboration with the ISSG on Catch, Effort and Sampling Overviews
- Continue testing the script on national data, and improve the script if needed.
- Collaborate with ISSG on SSF regarding métier assignment for the small-scale fishery to avoid MIS\_MIS\_0\_0\_0 métiers.

## **2.2 Manual**

To assist in the use and implementation of the reference lists and script developed by the ISSG, a manual has been prepared, which includes a short background, description of reference files and where to find them on GitHub, a description of the input format for using the R script, a documentation of the script and a visualization of the procedure by a flow chart.

The manual can be found at:

<https://github.com/ices-eg/RCGs/blob/master/Metiers/Scripts/Manual/Main.pdf>

The manual has been coded as an R-markdown script, available at <https://github.com/ices-eg/RCGs/tree/master/Metiers/Scripts/Manual>

## 2.3 Script

The functionality of the script is documented in the manual. The main improvements of the script within in the 2021 subgroup have been:

- The validation of data types in the input data has been included in the beginning of the script
- Now the metier codes for both level 5 and level 6 are assigned.
- Adding functions to assign metiers when they are missing, based on a series of search algorithms looking for metiers from the same vessel level, and if not found expanding to search wider, to metiers from similar groups of vessels with similar fisheries. The input information is by vessel, target species assemblage group, area, main gear from fleet register, month and quarter.
- In addition, the function to look at vessel pattern analysis, identify "rare metiers" which is only on a few fishing sequences for that vessel, and might be caused by an accidental non-targeted catch composition, has been improved.
- The script is using the gear reference list with re-coding of gear codes and also using the indication if a gear+RCG combination are applicable for DWS assignment.

A fleet register gear has been added to the input format as an optional field to allow for assigning metiers where logbook data are missing. There can be up to five gears specified per vessel in the fleet register, so the best guess should be added to the input format. The best guess can be assisted by expert knowledge, e.g. from observers.

## 2.4 Reference lists

### Metier list

Codes MIS\_ANA\_0\_0\_0, MIS\_CAT\_0\_0\_0, MIS\_DEF\_0\_0\_0, MIS\_FWS\_0\_0\_0 and MIS\_SPR\_0\_0\_0 codes have been added to the list for all regions for when there is a known target assemblage but no gear information. It was agreed to add these, as they provide more information than MIS\_MIS\_0\_0\_0.

Metier codes added in the North Sea:

- Selection 2\_35 for bottom trawls OTT/OTB/PTB and CRU, (DEF) and MCD with mesh 90-99 and mesh 100-119.
- Selection 4\_35 for bottom trawls OTT/OTB/PTB and CRU, (DEF) and MCD in the north sea with mesh 90-99 and 100-119.
- OTB and OTT\_DEF\_>=120\_1\_120. Often the 120 mesh in the exit window is a square mesh type. OTB\_DEF\_>=120\_1\_120, OTT\_DEF\_>=120\_1\_120, PTB\_DEF\_>=120\_1\_120 added.
- OTB/OTT/PTB\_CRU\_32\_69\_4\_22 which is shrimp trawl with both grid and tunnel
- DRB\_CRU\_>0\_0\_0: Dredge fishing for delta prawn
- GNC\_DEF\_>0\_0\_0
- SPR\_DEF\_>0\_0\_0
- LA\_SPF\_>0\_0\_0

Metier codes added in the North Atlantic:

- GNC\_DEF\_>0\_0\_0
- SPR\_DEF\_>0\_0\_0
- LA\_SPF\_>0\_0\_0
- DRB\_CRU\_>0\_0\_0: Dredge fishing for delta prawn

- DRH\_MOL\_>0\_0\_0
- GTN\_DEF\_>0\_0\_0
- PS\_MPD\_>0\_0\_0
- SB\_SPF\_>0\_0\_0
- TBB\_MCD\_>0\_0\_0

Level 5 of the metier code has been added to the metier list to include in the script.

### Species list

Corrections to the species list have been discussed, but there are cases where the same species can be assigned to different target assemblages when they are fished in different areas, seasons or by different gears. It is recommended to add national corrections to the script for the species assignment based on the area or the gear.

It was discussed if the species *Coregonus albula*, *Coregonus maraena* and *Myoxocephalus quadricornis* should be changed to FWS in the species list. It was agreed to keep them as they are in the species list, and then they can be re-coded as national corrections.

In Portugal *Trachurus trachurus* (horse mackerel) can be caught as a pelagic fish in PS fishery and as demersal in OTB fishery. It was suggested that the species will be grouped based on the gear code as a national correction.

### Gear list

A gear reference list has been added to the GitHub ([https://github.com/ices-eg/RCGs/blob/master/Metiers/Reference\\_lists/Code-ERSGearType-v1.1.xlsx](https://github.com/ices-eg/RCGs/blob/master/Metiers/Reference_lists/Code-ERSGearType-v1.1.xlsx)). The list includes the gear code, description, group and the gear level 6 where there is a re-coding of gears to the gear codes that are used in the metier level 6 codes. For example for trawls, the codes TBN and TBS are re-coded to OTB. In addition, there is a column indicating if the gear is used for deep water fishery and in which RCG regions. These columns are used by the script when assigning the DWS target species assemblage code.

Regarding use of the general gear codes GN and LX, they can be present in logbook data, but the group recommended that when allocating metier codes these should not be used, but to allocate them to GNS, GND, GTR, LLS, LLD etc. based on expert knowledge.

### Area list

Area 37 (Mediterranean and Black Sea) has been added to the area list with sub-areas.

## 2.5 Implementation

Metier codes are used in the following data calls: ICES WGBYC, ICES VMS/Logbook data, RDB, RDBES and STECF FDI. The aim is that the standardized metier codes are used in all data calls. It was agreed by the ISSG to recommend requesting the new metier codes in the RDBES test data call in 2021, and for the rest of the data calls in 2022. It would be good to get feedback on how it went in the RDBES test data call in 2021, and if the group can get access to the RDBES CE/CL data, the use of the new metier codes can be evaluated by the group.

The new metier codes were accepted for the RDBES at the Liaison meeting, and were also presented at the RDBESGOV meeting in December, as there are countries outside EU that also answer the ICES data calls. It was agreed that experts outside EU Member States can participate in the ISSG.

In 2021, the new system including metier codes, reference lists, script and manual should be presented and discussed at the expert groups responsible for the data calls (ICES WGSFD/WGSFDGOV, ICES WGBYC, STECF FDI), to discuss if it will be possible to request the new codes in 2022 data calls. For the data calls it needs to be considered if only new codes should be accepted, or both new and old codes, if there should be a transition period and if time series should be resubmitted with the new metier codes.

The persons responsible for data calls using métier codes and the ICES secretariat should be contacted. If relevant, expert groups could evaluate metier codes during benchmarks, in preparation for the shift from InterCatch to RDBES input data.

The metier code and the reference lists will be updated when needed. It is recommended that if a new code is requested, an e-mail should be sent to Josefine Egekvist (jsv@aqua.dtu.dk), and it will be discussed at the next ISSG on Metier issues meeting. The principles for the new metier list that will be considered when new metier codes are requested: harmonisation, non-overlapping mesh size ranges, not using general gear codes like LX, OT. The species, region, and fishery should be described.

## 2.6 Compare the proposed metier list with EUMAP level 5

This was done after the RCG meeting in 2020 and described in the 2020 Metier report page 8. Communication with MARE about adding following changes to EU MAP revision has been done. According to the ISSG Metier issues report following changes were proposed:

New gear codes have been suggested to be added to the metier level 4, as there is a fishery with these gears:

- LN – Lift nets: boat operated lift nets for smelts and European pilchard.
- DIV – Diving: a fishery for sea urchins, Murex, Great Atlantic scallop and octopuses in Mediterranean and Black Sea and North Atlantic
- FOO – Fishing on foot: a fishery for crustaceans and molluscs in North Atlantic and Mediterranean and Black Sea.
- FWR – Barriers, fences, wires etc.: a fishery for demersal fish in Mediterranean and Black Sea.
- GES – Glass eel gear.
- HMS – Harvesting gear seaweeds: a fishery in North Atlantic

For level 5 the following two target species assemblage groups have been suggested to be added:

- Demersal species split up into demersal fish (DEF) and demersal species (DES) for benthic species.
- Seaweeds (SWD) has been added

## 2.7 Reference with the old metier codes

This was done after the RCG meeting. A suggestion is on [https://github.com/ices-eg/RCGs/blob/master/Metiers/Reference\\_lists/Link\\_new\\_old\\_metier\\_codes.csv](https://github.com/ices-eg/RCGs/blob/master/Metiers/Reference_lists/Link_new_old_metier_codes.csv).

When old metier codes overlap several metier codes in new list, a choice has been taken to in general assign to the lowest corresponding mesh size range.

## 2.8 Metier descriptions

As data with new metier codes have not been uploaded to the RDB/RDBES during the 2021 ISSG, this task has not been relevant yet. Scripts and a template for metier descriptions were developed at the ISSG 2019, giving an overview of countries using metier codes by regions, and sheet describing

the metiers, including which countries are using them, in which years they have been reported, vessel lengths, main species landed from the metier, seasonal patterns of the fishing activity and a map showing the spatial distribution of the metier.

When data have been submitted for the RDBES test data call, the metier descriptions could be made if the ISSG can get access to the RDBES CE/CL data, and in the future could be further developed in collaboration with the RCG ISSG on Catch, Effort and Sampling Overviews.

### 3. Participants

Name	Country	Email
Maciej Adamowicz	Poland	madamowicz@mir.gdynia.pl
Bernardo Alcoforado	Portugal	balcoforado@dgrm.mm.gov.pt
Sébastien Demanèche	France	sdemanec@ifremer.fr
Sofia Carlshamre	Sweden	sofia.carlshamre@slu.se
Suzana Faria Cano	Portugal	sfcano@dgrm.mm.gov.pt
Josefine Egekvist (Chair)	Denmark	jsv@aqua.dtu.dk
Ana Claudia Fernandes	Portugal	acfarnandes@ipma.pt
Irina Jakovleva	Lithuania	Irina.jakovleva@zuv.lt
Maksims Kovsars	Latvia	Maksims.Kovsars@bior.lv
Karolina Molla Gazi	Netherlands	karolina.mollagazi@wur.nl
Claire Moore	Ireland	claire.moore@marine.ie
Henrik Kjems-Nielsen	Denmark	henrikkn@ices.dk
Katja Norén	Sweden	katja.noren@slu.se
Elo Rasmann	Estonia	Elo.Rasmann@envir.ee
Hans Hagen Stockhausen	Norway	hans.hagen.stockhausen@hi.no
Julia Wischnewski	Germany	julia.wischnewski@thuenen.de

Regarding involvement of participants from other RCGs, following chairs were contacted by email and invited to meetings, but didn't participate:

- RCG Med and Black Sea: Ivana Vukov (ivana.vukov@mps.hr) and Simona Nicheva (simona.nicheva@iara.government.bg)
- RCG Large Pelagics: Pedro Lino (plino@ipma.pt) and Josip Males (males@izor.hr)
- RCG Long Distance Fisheries: Ireneusz Wójcik (iwojcik@mir.gdynia.pl) and Sieto Verver (Sieto.Verver@wur.nl)