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Global Standard for Responsible Supply of Marine Ingredients

Fishery Assessment Methodology and Template Report V2.0



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| | |
|---------------------------------|---|
| Fishery Under Assessment | Whiting <i>Merlangius merlangus</i> ICES Divisions North East Atlantic |
| Date | Dec 2018 |
| Assessor | Jim Daly |

| Application details and summary of the assessment outcome | | | | |
|---|---------------|-----------------|----------------------------------|------------------------|
| Name: Copalis Industrie | | | | |
| Address: | | | | |
| Country: France | | Zip: | | |
| Tel. No.: | | Fax. No.: | | |
| Email address: | | Applicant Code | | |
| Key Contact: | | Title: | | |
| Certification Body Details | | | | |
| Name of Certification Body: | | SAI Global Ltd | | |
| Assessor Name | Peer Reviewer | Assessment Days | Initial/Surveillance/Re-approval | Whole fish/ By-product |
| Jim Daly | Vito Romito | 0.5 | SURV 1 | By-product |
| Assessment Period | 2018 | | | |

| Scope Details | |
|--------------------------------------|--|
| Management Authority (Country/State) | EU Common Fisheries Policy (CFP) |
| Main Species | Whiting (<i>Merlangius merlangus</i>) |
| Fishery Location | Northeast Atlantic |
| Gear Type(s) | Demersal trawl, Nephrops trawl, purse seine |
| Outcome of Assessment | |
| Overall Outcome | PASS (VIa; IIIa; Subarea IV VIIId; VIIb-c e-k) |
| Clauses Failed | Division VIIa; Division VIII, IXa (Clause C 1.2) |
| Peer Review Evaluation | Agree |
| Recommendation | Pass selected stocks; Fail VIIa; VIII, IXa |

Assessment Determination

Whiting (*Merlangius merlangus*) is managed under the EU Common Fisheries Policy (CFP); management measures include an annual TAC. Scientific catch advice is provided by ICES; providing advice on the following stocks in the assessment area:

- Division VIa, Division IIIa
- Subarea IV Division VIIId
- Division VIIa
- Division VII.b-c, e-k
- Division VIII, IXa

There is a discrepancy between management units and scientific stock units. There is a species-specific management regime in place for whiting so it is assessed under clause C. Fishery removals of the species in the fishery under assessment are included in the stock assessment process.

The Irish Sea stock (ICES Division VIIa) has an extremely low stock size. SSB has been declining since the start of the time-series and has been well below Blim since the mid-1990s. Consequently, it cannot be considered, in its most recent stock assessment, to have a biomass above limit reference point and fails clause C1.2.

While available information is insufficient to evaluate stock trends and exploitation status it is clear that, in ICES VIII, ICES advice is not being respected (ICES 2017). ICES also report discarding of this stock is substantial but cannot be quantified. Removals by the fishery (Division VIII) under assessment are not considered by scientific authorities to be negligible. The stock therefore fails this assessment (Clause C 1.2).

Remaining whiting stocks in the assessment area either are considered, in their most recent stock assessment (2017 data) to have biomass above limit reference point (or proxy) or removals are considered by scientific authorities to be negligible. These stocks pass clause C1.2.

The European Commission has proposed a multiannual management plan (MAP) for Western Waters, which is not yet finalized. It is proposed (EU 2018) to replace five existing single-species based multi-annual plans (MAP) (and other demersal species plans adopted by separate regulations) by bringing all MAP's for different demersal stocks into one Regulation.

The introduction of this new approach would allow achievement of conservation objectives while, at the same time, permitting elimination of fishing effort limitations meaning that numerous reporting and control obligations would not be required. This will result in a significant reduction of the administrative burden.

The IUCN has categorised *Merlangius merlangus* as a species of least concern, and it does not appear in the CITES appendices (accessed 10.01.19).

Whiting from stocks in Subarea IV (Division VII d); Divisions Xia, IIIa and Division VII b-c, e-k are recommended for approval as by-product material against the IFFO-RS by-product standard v 2.0.

Whiting from Division VIIa and Division VIII-IX a is not recommended for approval.

Peer Review Comments

For the stock in ICES VIII; IXa there is no basis to say the stock is above limit/proxy levels and does not pass C1.2. The problem here is the absolute lack of data on this stock. In the advice they also say discarding is substantial. Category 5 stocks are given advice based on average catch + Precautionary buffer. This approach is better than nothing. Given that the ICES advice of 1,613 tonnes has been ignored and TAC in Subarea VIII has been set at 2, 540 t in the past two years, I would say the advice is not really being respected. This could lead to problems. I would suggest failing this unit.

Notes for On-site Auditor

Whiting by-product from Division VIIa and Division VIII, IXa stocks must be separated from approved whiting by-product material prior to processing and labelling of IFFO-RS approved material.

Species-Specific Results

| Category | Species | % landings | Outcome (Pass/Fail) | |
|------------|-------------------------------------|------------|---------------------|--|
| Category A | | | A1 | |
| | | | A2 | |
| | | | A3 | |
| | | | A4 | |
| Category B | | | | |
| Category C | Whiting <i>Merlangius merlangus</i> | N/A | | |
| Category D | | | | |

[List all Category A and B species. List approximate total %age of landings which are Category C and D species; these do not need to be individually named here]

HOW TO COMPLETE THIS ASSESSMENT REPORT

This assessment template uses a modular approach to assessing fisheries against the IFFO RS standard.

Whole Fish

The process for completing the template for a **whole fish** assessment is as follows:

1. ALL ASSESSMENTS: Complete the Species Characterisation table, to determine which categories of species are present in the fishery.
2. ALL ASSESSMENTS: Complete clauses M1, M2, M3: Management.
3. IF THERE ARE CATEGORY A SPECIES IN THE FISHERY: Complete clauses A1, A2, A3, A4 for **each** Category A species.
4. IF THERE ARE CATEGORY B SPECIES IN THE FISHERY: Complete the Section B risk assessment for **each** Category B species.
5. IF THERE ARE CATEGORY C SPECIES IN THE FISHERY: Complete clause C1 for **each** Category C species.
6. IF THERE ARE CATEGORY D SPECIES IN THE FISHERY: Complete Section D.
7. ALL ASSESSMENTS: Complete clauses F1, F2, F3: Further Impacts.

A fishery must score a pass in **all applicable clauses** before approval may be recommended. To achieve a pass in a clause, the fishery/species must meet **all** of the minimum requirements.

By-products

The process for completing the template for **by-product raw material** is as follows:

1. ALL ASSESSMENTS: Complete the Species Characterisation table with the names of the by-product species and stocks under assessment. The “% landings” column can be left empty; all by-products are considered as Category C and D.

2. IF THERE ARE CATEGORY C BYPRODUCTS UNDER ASSESSMENT: Complete clause C1 for **each** Category C by-product.
3. IF THERE ARE CATEGORY D BYPRODUCTS UNDER ASSESSMENT: Complete Section D.
4. ALL OTHER SECTIONS CAN BE DELETED. Clauses M1 - M3, F1 - F3, and Sections A and B do not need to be completed for a by-product assessment.

By-product approval is awarded on a species-by-species basis. Each by-product species scoring a pass under the appropriate section may be approved against the IFFO RS Standard.

SPECIES CATEGORISATION

The following table should be completed as fully as the available information permits. Any species representing more than 0.1% of the annual catch should be listed, along with an estimate of the proportion of the catch each species represents. The species should then be divided into Type 1 and Type 2 as follows:

- **Type 1 Species** can be considered the ‘target’ or ‘main’ species in the fishery. They make up the bulk of annual landings and are subjected to a detailed assessment.
- **Type 2 Species** can be considered the ‘bycatch’ or ‘minor’ species in the fishery. They make up a small proportion of the annual landings and are subjected to relatively high-level assessment.

Type 1 Species must represent 95% of the total annual catch. Type 2 Species may represent a maximum of 5% of the annual catch (see Appendix B).

Species which make up less than 0.1% of landings do not need to be listed (NOTE: ETP species are considered separately). The table should be extended if more space is needed. Discarded species should be included when known.

The ‘stock’ column should be used to differentiate when there are multiple biological or management stocks of one species captured by the fishery. The ‘management’ column should be used to indicate whether there is an adequate management regime specifically aimed at the individual species/stock. In some cases it will be immediately clear whether there is a species-specific management regime in place (for example, if there is an annual TAC). In less clear circumstances, the rule of thumb should be that if the species meets the minimum requirements of clauses A1-A4, an adequate species-specific management regime is in place.

NOTE: If any species is categorised as Endangered or Critically Endangered on the IUCN Red List, or if it appears in the CITES appendices, it **cannot** be approved for use as an IFFO RS raw material. This applied to whole fish as well as by-products.

TYPE 1 SPECIES (Representing 95% of the catch or more)

Category A: Species-specific management regime in place.

Category B: No species-specific management regime in place.

TYPE 2 SPECIES (Representing 5% OF THE CATCH OR LESS)

Category C: Species-specific management regime in place.

Category D: No species-specific management regime in place.

| Common name | Latin name | Stock | % of landings | Management | Category |
|-------------|-----------------------------|--------------------|---------------|----------------------------------|----------|
| Whiting | <i>Merlangius merlangus</i> | Northeast Atlantic | N/A | EU Common Fisheries Policy (CFP) | C |

CATEGORY C SPECIES

In a whole fish assessment, Category C species are those which make up less than 5% of landings, but which are subject to a species-specific management regime. In most cases this will be because they are a commercial target in a fishery other than the one under assessment. In a by-product assessment, Category C species are those which are subject to a species-specific management regime, and are usually targeted species in fisheries for human consumption.

Clause C1 should be completed for **each** Category C species. If there are no Category C species in the fishery under assessment, this section can be deleted. A Category C species does not meet the minimum requirements of clause C1 should be re-assessed as a Category D species.

| Species Name | | Whiting <i>Merlangius merlangus</i> | |
|---|--|--|---|
| C1 | Category C Stock Status - Minimum Requirements | | |
| | C1.1 | Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible. | Pass |
| | C1.2 | The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible. | Pass/Fail |
| Clause outcome: | | | Pass: VIa; IIIa; Subarea IV VIIId; VIIb-c e-k |
| Clause outcome: | | | Fail: VIIa; VIII-IXa |
| Evidence: | | | |
| Whiting (<i>Merlangius merlangus</i>) in Division VIa (West of Scotland) | | | |
| C1.1: | | | |
| Input data (Division VIa stock) includes data derived from commercial landings, estimated discards, age composition of catches; five survey indices (ScoGFS-WIBTS-Q1, ScoGFS-WIBTS-Q4, IGFS-WIBTS-Q4, UKS-WIBTS-Q1 and UKS-WIBTS-Q4); fixed maturity data from surveys and natural mortalities estimated from mean weight-at-age using mean weight data from market sampling and discard observations. | | | |
| As with all other stocks assessed in this report fishery removals of the species in the fishery under assessment are included in the stock assessment process. All stocks pass Clause C1.1. | | | |
| C1.2: | | | |
| Whiting (<i>Merlangius merlangus</i>) in Division VIa (West of Scotland): (2017,2018 advice published June 2016): | | | |
| The spawning-stock biomass (SSB) has been increasing since 2006 but remains very low compared to historical estimates and well below Blim (Figure 1). Fishing mortality (F) has declined continuously since around 2000 and is very low. Zero catches have been advised by ICES since 2006. ICES reported landings in 2017 totalled 176t. Removals from this fishery are considered negligible so this stock passes clause C: | | | |

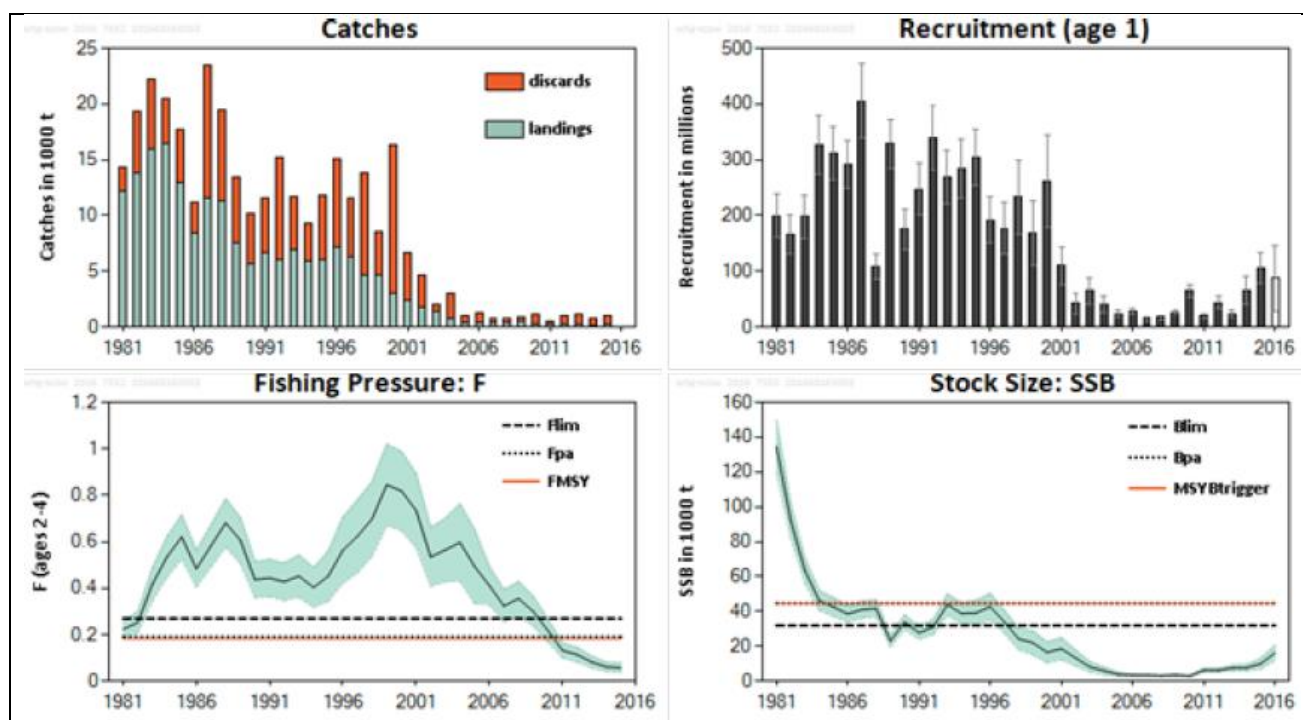


Figure 1. Whiting in Division VIa. Observed catches and summary of stock assessment (weights in thousand tonnes). The shaded areas in the bottom panels correspond to two standard errors for estimates of mortality and SSB. Predicted values in the recruitment plot are not shaded. Source: ICES 2016. **R2**

Whiting (*Merlangius merlangus*) Division IIIa: Skagerrak and Kattegat

Catches have been relatively low in recent years after a substantial industrial fishery ceased in the mid-1990s. The state of the stock is not known. ICES advises that when the precautionary approach is applied, catches should be no more than 400 tonnes in each of the years 2018 and 2019. ICES Reported landings (2016 data) were 545t (**Figure 2**):

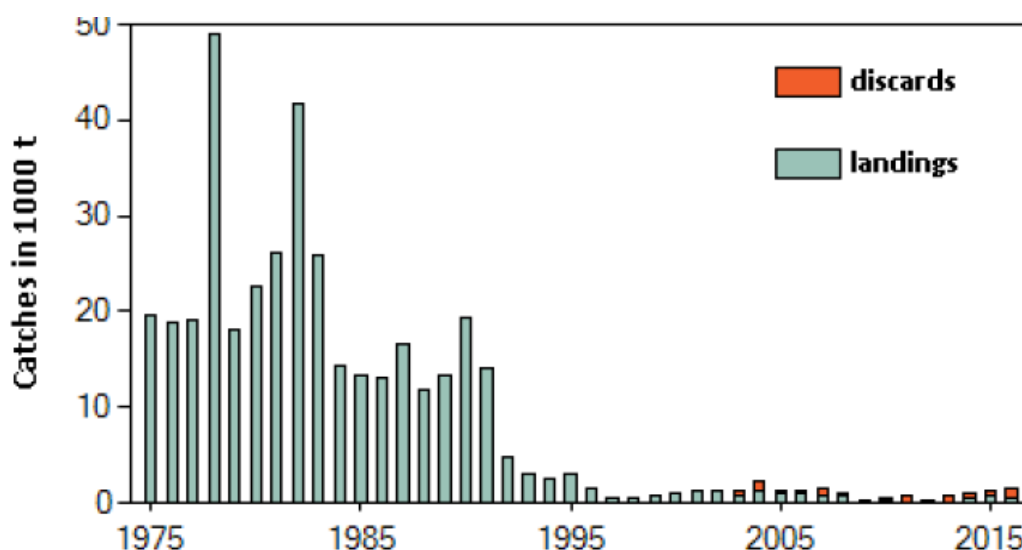


Figure 2: Whiting in Division IIIa. Summary of the stock assessment. ICES estimates of catch **R3**

The ICES framework for category 5 stocks was applied (ICES, 2012). For stocks without information on abundance or exploitation, ICES considers that a precautionary reduction of catches should be implemented unless there is supporting information clearly indicating that the current level of exploitation is appropriate for the stock. The precautionary buffer has not been applied since 2012 (for the 2013 advice); therefore, it is applied again this year. Removals by the fishery under assessment were considered by scientific authorities to be negligible; this stock passes Clause C1.2.

Whiting Subarea IV, Division VIIId: North Sea, Eastern English Channel:

Spawning-stock biomass (SSB) has fluctuated around, and is now above MSY Btrigger (**Figure 3**). Fishing mortality (F) has been above FMSY throughout the time-series but below Fpa since the early 2000s. Since 2003 recruitment (R) has been generally lower than in previous years.

Fishery removals of whiting in Subarea IV and Division VIIId are included in the stock assessment process and the stock is considered in its most recent assessment, to have a biomass above the limit reference point. This stock passes clause C: (**Figure 3**):

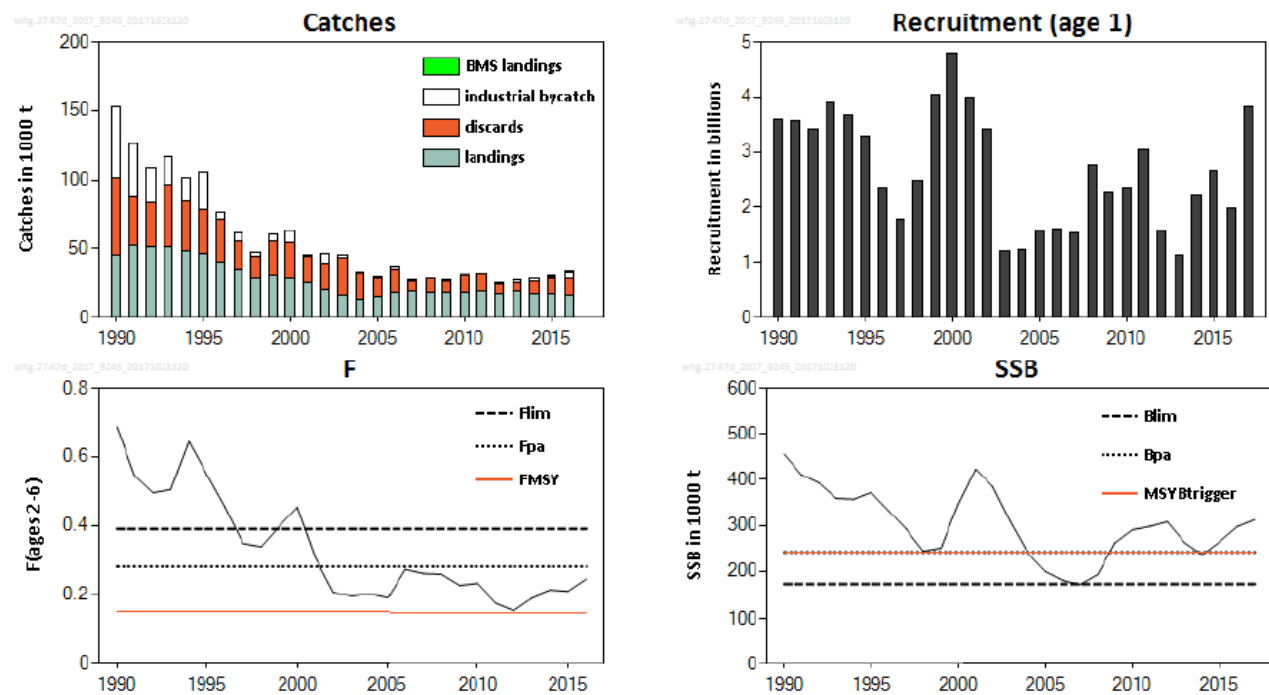


Figure 3. Whiting in Subarea IV and Division VIIId. Summary of the stock assessment. Source: ICES, 2017a. **R4**

Whiting VII b-c; e-k: Southern Celtic Seas and western English Channel

The spawning-stock biomass (SSB) has remained well above MSY Btrigger since 2009. Fishing mortality (F) has been below FMSY since 2008, and has increased in recent years. Recruitment has been below average since 2010 with the exception of the 2013 year class, which is estimated to be the second highest in the series **R5**. The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy) and passes Clause C1.2.

Whiting VIIa: Irish Sea:

Fishery removals of whiting in Division VIIa are included in the stock assessment process and the stock is considered, in its most recent assessment, to have a biomass below limit reference point.

The present stock size is extremely low. SSB has been declining since the start of the time-series and has been well below Blim since the mid-1990s (**Figure 4**). Recruitment has been low since the early 1990s. Large variations in fishing pressure has been estimated in recent years and F has been above Flim for the entire time-series. The species is not considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy) and fails Clause C1.2 (**Figure 4**):



Figure 4. Whiting in Division VIIa. Summary of stock assessment (weights in tonnes), Recruitment, F, and SSB have uncertainty boundaries ($1 \times$ standard deviation) in the plot. The predicted recruitment value is not shaded. **R6**

Divisions VIII, IX a:

ICES advises that when the precautionary approach is applied, catches in each of the years 2018 and 2019 should be no more than 1,613 tonnes. Landings have been reasonably stable over the time period. However TAC (Division VIII) has been set at 2,540t (2017, 2018 fishery). While available information is insufficient to evaluate stock trends and exploitation status it is clear that the ICES advice is not being respected. ICES also report discarding is substantial but cannot be quantified (ICES 2017).

The ICES framework for category 5 stocks was applied (ICES, 2012). For stocks without information on abundance or exploitation, ICES considers that a precautionary reduction of catches should be implemented unless there is ancillary information clearly indicating that the current level of exploitation is appropriate for the stock. The precautionary buffer was applied in 2015 (for the 2016 advice) and was not applied the following year. Discarding is known to be substantial but cannot be quantified.

Removals by the fishery (Division VIII) under assessment are not considered by scientific authorities to be negligible. The stock therefore fails this assessment (Clause C 1.2).

R7

References

R1 North Western Waters Multi-annual Plan Proposal: (2018)

Proposal for a Regulation of the European Parliament and of the Council establishing a Multiannual Plan for fish stocks in Western Waters and adjacent waters, and for fisheries exploiting those stocks, amending Regulation (EU) 2016/1139 establishing a multiannual plan for the Baltic Sea, and repealing Regulations (EC) No 811/2004 <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018PC0149&from=EN>

R2 ICES (2016, 2017) ICES Advice on fishing opportunities, catch, and effort Greater North Sea Ecoregion. Whiting (*Merlangius merlangus*) Area VIa

<http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2016/2016/whg-scow.pdf>

R3 ICES (June 2017) ICES Advice on fishing opportunities, catch, and effort Greater North Sea Ecoregion. Whiting (*Merlangius merlangus*) Area IIIa

<http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2017/2017/whg.27.3a.pdf>

R4 ICES (June 2017) ICES Advice on fishing opportunities, catch, and effort Greater North Sea Ecoregion. Whiting (*Merlangius merlangus*): Subarea IV and Division VII d (North Sea and eastern English Channel)

<http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2017/2017/whg.27.47d.pdf>

R5 ICES (June 2017) ICES Advice on fishing opportunities, catch, and effort Greater North Sea Ecoregion. Whiting (*Merlangius merlangus*): Area VII b-c; e-k:

<http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2017/2017/whg.27.7b-ce-k.pdf>

R6 ICES (June 2017) ICES Advice on fishing opportunities, catch, and effort Greater North Sea Ecoregion. Whiting (*Merlangius merlangus*): Area VIIa: Irish Sea

<http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2017/2017/whg.27.7a.pdf>

R7 ICES (June 2017) ICES Advice on fishing opportunities, catch, and effort Greater North Sea Ecoregion. Whiting (*Merlangius merlangus*): Whiting VIII, IX a: Bay of Biscay and Atlantic Iberian waters):

<http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2017/2017/whg.27.89a.pdf>

R8 ICES (2012) ICES Implementation of Advice for Data-limited Stocks in 2012 in its 2012 Advice. ICES CM 2012/ACOM 68. 42 pp.

R9 IUCN Red list (accessed 10.01.19): <https://www.iucnredlist.org/species/198585/45097610>

Standard clauses 1.3.2.2

SOCIAL CRITERION

In addition to the scored criteria listed above, applicants must commit to ensuring that vessels operating in the fishery adhere to internationally recognised guidance on human rights. They must also commit to ensuring there is no use of enforced or unpaid labour in the fleet(s) operating upon the resource.

Appendix A - Determining Resilience Ratings

The assessment of Category B species described in this assessment report template utilises a resilience rating system suggested by the American Fisheries Society. This approach was chosen because it is also used by FishBase, and so the resilience ratings for many thousands of species are freely available online. As described by FishBase, the following is the process used to arrive at the resilience ratings:

“The American Fisheries Society (AFS) has suggested values for several biological parameters that allow classification of a fish population or species into categories of high, medium, low and very low resilience or productivity (Musick 1999). If no reliable estimate of r_m (see below) is available, the assignment is to the lowest category for which any of the available parameters fits. For each of these categories, AFS has suggested thresholds for decline over the longer of 10 years or three generations. If an observed decline measured in biomass or numbers of mature individuals exceeds the indicated threshold value, the population or species is considered vulnerable to extinction unless explicitly shown otherwise. If one sex strongly limits the reproductive capacity of the species or population, then only the decline in the limiting sex should be considered. We decided to restrict the automatic assignment of resilience categories in the Key Facts page to values of K , t_m and t_{max} and those records of fecundity estimates that referred to minimum number of eggs or pups per female per year, assuming that these were equivalent to average fecundity at first maturity (Musick 1999). Note that many small fishes may spawn several times per year (we exclude these for the time being) and large live bearers such as the coelacanth may have gestation periods of more than one year (we corrected fecundity estimates for those cases reported in the literature). Also, we excluded resilience estimates based on r_m (see below) as we are not yet confident with the reliability of the current method for estimating r_m . If users have independent r_m or fecundity estimates, they can refer to Table 1 for using this information.”

| Parameter | High | Medium | Low | Very low |
|--------------------|----------|-------------|-------------|----------|
| Threshold | 0.99 | 0.95 | 0.85 | 0.70 |
| r_{max} (1/year) | > 0.5 | 0.16 – 0.50 | 0.05 – 0.15 | < 0.05 |
| K (1/year) | > 0.3 | 0.16 – 0.30 | 0.05 – 0.15 | < 0.05 |
| Fecundity (1/year) | > 10,000 | 100 – 1000 | 10 – 100 | < 10 |
| t_m (years) | < 1 | 2 – 4 | 5 – 10 | > 10 |
| t_{max} (years) | 1 - 3 | 4 – 10 | 11 – 30 | > 30 |

Taken from the FishBase manual, “Estimation of Life-History Key Facts”:

<http://www.fishbase.us/manual/English/key%20facts.htm#resilience>

Appendix B – Background on the 5% catch rule

The proposed fishery assessment methodology uses a species categorisation approach to divide the catch in the assessment fishery into groups. These groups are:

- **Category A:** “Target” species with a species-specific management regime in place.
- **Category B:** “Target” species with no species-specific management regime in place.
- **Category C:** “Non-target” species with a species-specific management regime in place.
- **Category D:** “Non-target” species with no species-specific management regime in place

The distinction between 'target' and 'non-target' species is made to enable the assessment to consider the impact of the fishery on all the species caught regularly, without requiring a full assessment be conducted for each. Thus 'target' species are subjected to a more detailed assessment, while 'non-target' species are considered more briefly. For the purposes of the IFFO RS fishery assessment, 'target' and 'non-target' species are defined by their prevalence in the catch, by weight. Applicants must declare which species are considered 'target' species in the fishery, and the combined weight of these must be at least 95% of the annual catch. The remaining 5% can be made up of 'non-target' species. Note also that ETP species are considered separately, irrespective of their frequency of occurrence in the catch.

The proposed use of 5% as a limit for 'non-target' species is one area in which feedback is being sought via the public consultation. The decision to propose a value of 5% ensures consistency with other fishery assessment programmes, such as the MSC which uses 5% to distinguish between 'main' and 'minor' species (see MSC Standard, SA3.4 and GSA3.4.2); and Seafood Watch, which uses 5% when defining the 'main' species for the assessment (see Seafood Watch Standard, Criterion 2). The value is also consistent with the approach used in Version 1 of the IFFO RS Standard, in which up to 5% of the raw material could be comprised of 'unassessed' species.