

Joint Recommendation of the North Western Waters High-Level Group

Discard Plan for demersal and deep-sea fisheries in the North Western Waters

Updated version for 2018

1. Implementing authority

- a. In accordance with Article 43(2) and Article 290 of the Treaty on the Functioning of the European Union, the European Commission has been empowered on basis of Articles 15(6) and 18(1) of Regulation (EU) No 1380/2013 to adopt discard plans by means of delegated acts. In accordance with Article 18(1) of Regulation (EU) No 1380/2013, the Member States of the North Western Waters hereby submit a joint recommendation to the European Commission for a specific discard plan for demersal fisheries in the North Western Waters. The objective is that the Commission, on basis of the underlying Joint Recommendation adopts a delegated act replacing/amending Regulation (EU) No 2016/2375 that currently applies from 1 January 2017 until 31 December 2018. Regulation (EU) No 2016/2375 is also expected to be amended in order to take specific fisheries on deep-sea species on board from the 1st of January 2018.

2. Objectives of the discard plan

- a. As a result of the reform of the Common Fisheries Policy (Regulation (EU) No 1380/2013), adopted in 2013 and entered into force from 1st January 2014 on, there is now a provision under Article 18 that allows Member States to elaborate joint recommendations for regional management measures specific to their fisheries, applying to a relevant geographical area and submit these to the European Commission for adoption via delegated acts.
- b. The scope of these recommendations is laid down in Article 18(1) of Regulation (EU) No 1380/2013 by way of reference i.a. to Article 15(6) thereof. Art 15(6) outlines the process for adoption of a specific discard plan by the European Commission for a period of no more than three years. The discard plan has to contain each of the specifications referred to in points (a) to (e) of Article 15(5).

- c. Under Article 15(6) of Regulation (EU) No 1380/2013, Member States may cooperate, in accordance with Article 18 thereof, in the drawing up of a specific discard plan with a view to the Commission adopting such a plan by means of a delegated act or via the ordinary Legislative Procedure.
- d. The adoption of such specific discard plans is considered to be important to achieve a successful implementation of the landing obligation as specified in the reformed Common Fisheries Policy.
- e. As such, this discard plan will establish provisions to implement each of the provisions laid down in in points (a) to (e) of Article 15(5) of Regulation (EU) No 1380/2013, including specific descriptions of any exemptions obtained.
- f. It is intended that the Commission delegated act giving effect to this discard plan shall remain open to revision and adaptation at any time during its duration of one year (2018) in order to guaranty flexibility in addressing the challenges that will be faced during the year 2018 by the introduction of the landing obligation for demersal fisheries and deep-sea fisheries. In particular, this discard plan shall remain open to the inclusion of additional exemptions under high survival and de minimis later in 2018, and shall remain open to the inclusion of specific provisions for Minimum Conservation Reference Size (MCRS) to be specified at any time.
- g. In association with this discard plan, there may be a need for complementary changes in technical measures in order to increase selectivity and reduce as far as possible unwanted catches. Any such measure may be brought forward in a separate recommendation as early as possible.
- h. In accordance with Article 18(2) of Regulation (EU) No 1380/2013, the North West Waters Group has undertaken regular and detailed consultations with the North Western Waters Advisory Council which has been engaged in the preparation of this plan and that on a regular and detailed basis. The recommendations of the Advisory Council were fully examined and, where possible, taken on board in this Joint Recommendation.
- i. It is considered to be the joint responsibility of the Commission and the Member States concerned to maintain oversight of the implementation of the provisions of this discard plan and to review and amend any element which appears not to be fit for its appropriate purpose on basis of evidence and/or improved availability of data.

3. Duration

- a. In accordance with Article 15(6) of Regulation (EU) No 1380/2013, this specific discard plan shall have a duration of one year, i.e. the year 2018. It will cover the

last year of the 3 year discard plan laid down in Regulation (EU) No 2015/2438, replaced from 1 January 2017 on by Regulation (EU) No 2016/2375.

4. Scope

- a. In accordance with Article 15(1) (c) of Regulation (EU) No 1380/2013, the Member States of the North Western Waters Group are committed to a progressive and incremental introduction of the landing obligation for demersal and deep-sea fisheries in the North Western Waters over the period 1 January 2016 to 1 January 2019.
- b. This Joint Recommendation covers species which define the highly mixed cod, haddock, whiting & saithe fishery; Norway lobster (Nephrops) fishery; mixed common sole and plaice fishery; hake fishery, megrim fishery, pollack and deep-sea fisheries. Some more bycatch species have also been added to those in some existing rules for 2017.
- c. In the North Western Waters, according to Article 15(1) c) of Regulation (EU) No 1380/2015, species which define the fisheries for cod, haddock, whiting and saithe, fisheries for Norway lobster, fisheries for common sole and plaice and fisheries for hake fall under the landing obligation from 1 January 2016 on. According to Article 15(1) d) of Regulation (EU) No 1380/2015, species which define the other fisheries in the North Western Waters, including deep-sea fisheries on black scabbard fish, fisheries on blue ling and fisheries on grenadiers, fall under the landing obligation from 1 January 2017 on. It is proposed to include all relevant species in the new discard plan for 2018.
- d. In 2017 a bycatch species in Norway lobster targeting fisheries in ICES VI and Vb was already brought under the landing obligation (haddock). It is proposed to maintain it for 2018 and to add by-catches of sole, plaice and megrim.
- e. It is proposed to bring saithe under the landing obligation in ICES VI, Vb, and VII from 1 January 2018 on where the total landings per vessel of all species in 2015 and 2016 consist of more than 50% of saithe.
- f. It is proposed to lower or to delete the thresholds of target species determining when a targeted fishery might be considered as targeted on one or more specific species.
 - For hake caught with trawls and seines in ICES VI, VII and Vb from 20% to 10%.
 - For whiting in the directed fishery on gadoids in ICES VIId and in ICES VIIb, VIIc, VIIe and VIIf- VIIk: from 20% in 2017 to 10% in 2018.

- For Norway lobster from 20% to 5% in ICES VI and Vb and from 20% to 10% in ICES VII. In 2018 the threshold for the common sole will disappear for trawls in ICES VIId and for beam trawls in ICES VIId, VIIf, and ICES VIIf, VIIfc and VIIfd – VIIfk.

All other thresholds of target species determining when a targeted fishery may be considered as targeted are maintained for 2018 without any modification.

- g. Reference periods were changed from “2014 and 2015” to “2015 and 2016”. Vessels listed as subject to the landing obligation in a particular fishery in accordance with Commission Delegated Regulation (EU) No. 2015/2438 and in accordance with Commission Delegated Regulation (EU) No. 2016/2375 or in accordance with Commission Delegated Regulation concerning the phasing in of landing obligation for deep-sea species, to be published later this year, remain on the list despite the change in the reference period and continue being subject to the landing obligation in their particular fishery.
- h. It is clear that the scope of this Joint recommendation is to extend the landing obligation for demersal species in the North Western Waters:
 - by lowering or deleting the thresholds, it is intended that more vessels are concerned by the landing obligation.
 - by adding a new targeted fishery and new by-catch species to the list in the Annex 0 to the Regulation, it is intended that more species subject to catch limits are subject to the landing obligation.

The members of the North Western Waters group consider that this double approach might be the best solution in order to assure a smooth phasing-in towards full landing obligation on 1 January 2019.

- i. In developing this Joint Recommendation, the North Western Waters Group has taken full account of the agreed recommendations, suggestions and information furnished by the North Western Waters Advisory Council. Those agreed positions, relating to the phasing-in of the landing obligation and the species which will be subject to the landing obligation from the 1st January 2018, have been accepted by the North Western Waters Group. The North Western Waters Advisory Council already from the beginning agreed that a gradual phasing in of the landing obligation will be critical to allow for adaptation to it and to retain stakeholder support (i.e. the need to avoid a “big bang”). The Advisory Council also accepted that a final “big bang” should be avoided if possible in 2019 i.e. that phased implementation should continue in 2018. The Member States of the North Western Waters Group also considered the views expressed by different stakeholders within the NWWAC, where those were not the agreed positions of the NWWAC.

- j. The North Western Waters Group, following the recommendations of the North Western Waters Advisory Council, has identified some fields for additional work in 2018:
- Further exploration for a possible introduction of a de minimis exemption for megrims in ICES subareas VI and VII, and Union and International waters of ICES division Vb.
 - The conduction of additional scientific pilot projects to explore an exemption for high survivability for plaice.
 - To facilitate the introduction of the landing obligation in 2019 STECF is requested to make already an assessment in 2017 of the introduction of a de minimis for gadoids catches (cod, whiting, haddock combined).

Phasing proposals which were discussed but not taken forward for 2017 were reconsidered for introduction in 2018 alongside new proposals and lessons learned from the landing obligation to-date.

The Group is also keen to continue to work with the Advisory Council and the European Commission to find and apply solutions to 'choke' issues later in 2018, but prior to 2019.

- k. Fisheries and the specific landing obligation recommended from the 1st January 2018 in respect of the species defining those fisheries are listed in the Annex 0 for the demersal fisheries and in Annex 0 bis for deep-sea fisheries.
- l. Vessels subject to a landing obligation determined by threshold criteria only shall be included in a list on the secure EU control website established under Article 114 of Council Regulation (EC) No 1224/2009. Further details are included in Annex I. Vessels that already were on the list in 2016 and/or 2017 will remain on that list in the year 2018, even if they do not fulfil the new criteria for 2018 due to the change in the reference period.

5. Exemptions

- a. Fish which has been damaged by predators like fish-eating marine mammals, predatory fish or birds can constitute a risk to humans, pets and other fish by virtue of pathogens and bacteria which might be transmitted by such animals. Consequently, as set out in Article 15(4) d), the landing obligation should not apply to such catches and the fish should be immediately disposed of at sea.
- b. Having regard to food safety provisions as set out in Regulation (EC) No 853/2004 of the European Parliament and of the Council as well as in Commission Regulation (EC) No 1881/2006, catches of fish for which flesh contaminants would exceed the

maximum limits set by EU rules for human or animal consumption shall not be kept on board of a vessel. Consequently, the landing obligation should not apply to such catches and the fish should be immediately disposed of at sea.

- c. Cases where the landing obligation shall not apply are specified in Article 15(4) of Regulation (EU) No 1380/2013. This refers to species in respect of which fishing is prohibited, as defined by a Union legal act adopted in the area of the CFP (Article 15(4) a), species for which scientific evidence demonstrates high survival rates (Article 15(4) b), and catches falling under the de minimis exemption, as outlined in Article 15(5) c) of Regulation (EU) No 1380/2013.
- d. The North Western Waters Group recommends that the existing **high survivability exemptions** should remain:
- Norway lobster (*Nephrops*) caught by pots, traps or creels (gear codes FPO and FIX) in ICES subareas VI and VII (already provided for in Regulation (EU) No 2016/2375)

Additional information is delivered in annex III for a revision of the following exemption:

- Common sole (*Solea solea*) caught by otter trawl gears (OTT, OTB, TBS, TBN, TB, PTB, OT, PT, TX) meeting the following conditions:
 - i. of length less than the MCRS of 24cm;
 - ii. caught by vessels using 80-99mm otter trawl gears;
 - iii. within 6 nautical miles of coast in ICES area VIId and outside identified nursery areas;
 - iv. caught by vessels with a maximum length of 10m;
 - v. caught by vessel fishing in waters with a depth of 30m or less; and
 - vi. caught by vessels with limited tow durations of no more than 1:30 hours

The NWW Group recommends that STECF be requested to swiftly evaluate this exemption, before deciding on it. Further research or evidence provided by Member States may allow this exemption to be applied more widely in future years. (already provided for in Regulation (EU) No 2016/2375) but only for 2017)

The North Western Waters Group is aware that scientific research on other species and fishing methods is ongoing. The North Western Waters Group also recommends for the continuation of *de minimis* exemptions as set out herein.

- (i) for whiting up to a maximum of 6% for 2018 of the total annual catches of that species by vessels, obliged to land whiting and using bottom trawls and seines of less than 100mm (OTB, SSC, OTT, PTB, SDN, SPR, TBN, TBS, TB, SX, SV, OT, PT and TX) and pelagic trawls (OTM, PTM) to catch whiting in the Channel (ICES divisions VIId and e). (already provided for in Regulation (EU) No 2016/2375)

- (ii) for whiting up to a maximum of 6% for 2018 of the total annual catches of that species by vessels, obliged to land whiting and using bottom trawls and seines not less than 100mm (OTB, SSC, OTT, PTB, SDN, SPR, TBN, TBS, TB, SX, SV, OT, PT, TX) and pelagic trawls (OTM, PTM) to catch whiting in the Celtic Sea and the Channel (ICES divisions VIIb-VIIj). (already provided for in Regulation (EU) No 2016/2375)
- (iii) for whiting up to a maximum of 6% for 2018 of the total annual catches of that species by vessels, obliged to land whiting and using bottom trawls and seines of less than 100mm (OTB, SSC, OTT, PTB, SDN, SPR, TBN, TBS, TB, SX, SV, OT, PT, TX) and pelagic trawls (OTM, PTM) to catch whiting in the Celtic Sea (ICES subarea VII, except divisions VIIa, VIId and VIIe). (already provided for in Regulation (EU) No 2016/2375)
- (iv) for Norway lobster (Nephrops) up to a maximum of 6% for 2018 of the total annual catches of that species by vessels obliged to land Norway lobster (Nephrops) in ICES subarea VII. (already provided for in Regulation (EU) No 2016/2375)
- (v) for Norway lobster (Nephrops) up to a maximum of 2% for 2018 of the total annual catches of that species by vessels obliged to land Norway lobster (Nephrops) in ICES subarea VI. (already provided for in Regulation (EU) No 2016/2375)
- (vi) for common sole up to a maximum of 3% 2018 of the total annual catches of that species by vessels using trammel and gill nets to catch common sole in the Channel and the Celtic Sea (ICES divisions VIId, VIIe, VIIf and VIIg). (already provided for in Regulation (EU) No 2016/2375)
- (vii) for common sole up to a maximum of 3% of the total annual catches of this species by vessels obliged to land common sole using TBB gear with mesh size of 80-119mm with increased selectivity, such as a large mesh extension, in the Channel (ICES divisions VIId and VIIe) and the Celtic Sea (divisions VIIf, VIIg and VIIh). (already provided for in Regulation (EU) No 2016/2375)

Full details for each case were send with last years' joint recommendations and were already positively assessed by STECF.

The NWW Group recommends that before deciding on new exemptions for reasons of de minimis STECF be requested to swiftly evaluate these exemptions and give supplementary advice on any further or changed conditions to such exemptions.

6. Documentation of catches

- a. In accordance with Article 15(5)(d), specific discard plans can make provisions on documentation of catches. Such provisions should be consistent with the rules outlined in Regulation (EU) no 1224/2009.
- b. Catches of species subject to catch limits shall be recorded in the appropriate fishing logbook with the correct scientific species name and/or with the appropriate codes in order to quantify the exact catches, in accordance with the Control Regulation. Documentation should be sufficiently rigorous to enable robust scientific assessments to be undertaken and the application of methods of control.
- c. Catches of species below a minimum conservation reference size should be recorded as a separate entry.
- d. For any species not subject to the landing obligation, all estimated volumes of discards above 50 kg live-weight equivalent in volume shall be recorded in the electronic/fishing logbook with appropriate codes denoting the species discarded.
- e. For any species not subject to the landing obligation pursuant to Articles 15(4) and 15(5) of Regulation (EU) No 1380/2013 of the European Parliament and of the Council all estimated discards in volume shall be recorded in the electronic/fishing logbook. The utilisation of the de minimis exemption shall be monitored by the competent authority.

The North Western Waters Group may wish to take account of any advice issued by relevant experts groups relating to the documentation of catches in due course.

7. List of annexes:

- Annex 0: demersal fisheries and species falling under the landing obligation
- Annex 0 bis: deep sea fisheries and species falling under the landing obligation
- Annex I: List of Vessels subject to a landing obligation determined by threshold criteria only
- Annex II: Gear Code Acronym Table
- Annex III: High survival exemption for “undersized” common sole (sole less than MCRS of 24 cm) caught by 80-99mm otter trawl gears in ICES area VIIId within 6 nautical miles of coasts, albeit outside identified nursery areas.

ANNEX 0

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Discard plan for certain demersal fisheries in North-Western waters

Fisheries subject to the landing obligation

a) Fisheries in Union and International waters of ICES subarea VI and division Vb

| Fishery | Gear Code | Fishing gear description | Mesh Size | Landing Obligation |
|---|--|--------------------------------------|-----------|--|
| Cod (<i>Gadus morhua</i>), Haddock (<i>Melagrammus aeglefinus</i>), Whiting (<i>Merlangius merlangus</i>) and Saithe (<i>Pollachius virens</i>) | OTB, SSC, OTT, PTB, SDN, SPR, TBN, TBS, OTM, PTM, TB, SX, SV, OT, PT, TX | Trawls & Seines | All | Where total landings per vessel of all species in 2015 and 2016* consist of more than 5% of the following gadoids: cod, haddock, whiting and saithe combined, the landing obligation shall apply to haddock and by-catch of sole, plaice, and megrims. |
| Norway lobster (<i>Nephrops Norvegicus</i>) | OTB, SSC, OTT, PTB, SDN, SPR, FPO, TBN, TB, TBS, OTM, PTM, SX, SV, FIX, OT, PT, TX | Trawls, Seines, Pots, Traps & Creels | All | Where the total landings per vessel of all species in 2015 and 2016* consist of more than 5% of Norway lobster, the landing obligation shall apply to Norway lobster and by-catch of haddock, sole, plaice and megrim. |
| Saithe (<i>Pollachius virens</i>) | OTB, SSC, OTT, PTB, SDN, SPR, TBN, TBS, OTM, PTM, TB, SX, SV, OT, PT, TX | Trawls | ≥100 mm | Where the total landings per vessel of all species in 2015 and 2016 consist of more than 50% of saithe, the landing obligation shall apply to saithe. |

* Vessels listed as subject to the landing obligation in this fishery **in accordance with Commission Delegated Regulation (EU) No. 2015/2438 and in accordance with Commission Delegated Regulation (EU) No. 2016/2375** remain on the list despite the change in the reference period **and** continue being subject to the landing obligation in this fishery.

b) Fisheries for hake and fisheries for megrims, with TAC for ICES subareas VI and VII and Union and International waters of ICES division Vb

| Fishery | Gear Code | Fishing gear description | Mesh Size | Landing Obligation |
|--|--|---------------------------------|------------------|--|
| Hake (<i>Merluccius merluccius</i>) | OTB, SSC, OTT, PTB, SDN, SPR, TBN, TBS, OTM, PTM, TB, SX, SV, OT, PT, TX | Trawls & Seines | All | Where the total landings per vessel of all species in 2015 and 2016* consist of more than 10% of hake, the landing obligation shall apply to hake. |
| Hake (<i>Merluccius merluccius</i>) | GNS, GN, GND, GNC, GTN, GTR, GEN | All Gill Nets | All | All catches of hake shall be subject to the landing obligation. |
| Hake (<i>Merluccius merluccius</i>) | LL, LLS, LLD, LX, LTL, LHP, LHM | All Long lines | All | All catches of hake shall be subject to the landing obligation. |

* Vessels listed as subject to the landing obligation in this fishery **in accordance with Commission Delegated Regulation (EU) No. 2015/2438 and in accordance with Commission Delegated Regulation (EU) No. 2016/2375** remain on the list despite the change in the reference period **and** continue being subject to the landing obligation in this fishery.

c) Fisheries with TAC covering ICES subarea VII for Norway lobster

| Fishery | Gear Code | Fishing gear description | Mesh Size | Landing Obligation |
|--|--|--------------------------------------|------------------|--|
| Norway lobster (<i>Nephrops Norvegicus</i>) | OTB, SSC, OTT, PTB, SDN, SPR, FPO, TBN, TB, TBS, OTM, PTM, SX, SV, FIX, OT, PT, TX | Trawls, Seines, Pots, Traps & Creels | All | Where the total landings per vessel of all species in 2015 and 2016* consist of more than 10% of Norway lobster, the landing obligation shall apply to Norway lobster. |

* Vessels listed as subject to the landing obligation in this fishery **in accordance with Commission Delegated Regulation (EU) No. 2015/2438 and in accordance with Commission Delegated Regulation (EU) No. 2016/2375** remain on the list despite the change in the reference period **and** continue being subject to the landing obligation in this fishery.

d) Fisheries in ICES subarea VII for saithe

| | | | | |
|-------------------------------------|--|--------|------------|---|
| Saithe (<i>Pollachius virens</i>) | OTB, SSC, OTT, PTB, SDN, SPR, TBN, TBS, OTM, PTM, TB, SX, SV, OT, PT, TX | Trawls | ≥100 mm | Where the total landings per vessel of all species in 2015 and 2016 consist of more than 50% of saithe, the landing obligation shall apply to saithe. |
|-------------------------------------|--|--------|------------|---|

e) Fisheries in ICES division VIIa

| Fishery | Gear Code | Fishing gear | Mesh Size | Landing Obligation |
|--|--|-----------------------|-----------|---|
| Cod (<i>Gadus morhua</i>), Haddock (<i>Melagrammus aeglefinus</i>), Whiting (<i>Merlangius merlangus</i>) and Saithe (<i>Pollachius virens</i>) | OTB, SSC, OTT, PTB, SDN, SPR, TBN, TBS, OTM, PTM, TB, SX, SV, OT, PT, TX | Trawls & Seines | All | Where total landings per vessel of all species in 2015 and 2016* consist of more than 10% of the following gadoids: cod, haddock, whiting and saithe combined, the landing obligation shall apply to haddock. |

* Vessels listed as subject to the landing obligation in this fishery **in accordance with Commission Delegated Regulation (EU) No. 2015/2438 and in accordance with Commission Delegated Regulation (EU) No. 2016/2375** remain on the list despite the change in the reference period **and** continue being subject to the landing obligation in this fishery.

f) Fisheries in ICES division VIIId

| Fishery | Gear Code | Fishing gear | Mesh Size | Landing Obligation |
|-------------------------------------|--|--------------------|------------|--|
| Common Sole (<i>Solea solea</i>) | TBB | All Beam trawls | All | All catches of common sole are subject to the landing obligation. |
| Common Sole (<i>Solea solea</i>), | OTT, OTB, TBS, TBN, TB, PTB, OT, PT, TX | Trawls | <100 mm | All catches of common sole shall be subject to the landing obligation. |

| Fishery | Gear Code | Fishing gear | Mesh Size | Landing Obligation |
|---|--|------------------------------|------------------|---|
| Common Sole (<i>Solea solea</i>) | GNS, GN, GND, GNC, GTN, GTR, GEN | All Trammel nets & Gill nets | All | All catches of common sole shall be subject to the landing obligation. |
| Cod (<i>Gadus morhua</i>), Haddock (<i>Melagrammus aeglefinus</i>), Whiting (<i>Merlangius merlangus</i>) and Saithe (<i>Pollachius virens</i>) | OTB, SSC, OTT, PTB, SDN, SPR, TBN, TBS, OTM, PTM, TB, SX, SV, OT, PT, TX | Trawls and Seines | All | Where the total landings per vessel of all species in 2015 and 2016* consist of more than 10% of the following gadoids: cod, haddock, whiting and saithe combined, the landing obligation shall apply to whiting. |

* Vessels listed as subject to the landing obligation in this fishery **in accordance with Commission Delegated Regulation (EU) No. 2015/2438 and in accordance with Commission Delegated Regulation (EU) No. 2016/2375** remain on the list despite the change in the reference period **and** continue being subject to the landing obligation in this fishery.

g) Fisheries in ICES division VIIe for common sole

| Fishery | Gear Code | Fishing gear | Mesh Size | Landing Obligation |
|-------------------------------------|----------------------------------|------------------------------|------------------|--|
| Common Sole (<i>Solea solea</i>), | TBB | All Beam trawls | All | All catches of common sole shall be subject to the landing obligation. |
| Common Sole (<i>Solea solea</i>), | GNS, GN, GND, GNC, GTN, GTR, GEN | All Trammel nets & Gill nets | All | All catches of common sole shall be subject to the landing obligation. |

* Vessels listed as subject to the landing obligation in this fishery **in accordance with Commission Delegated Regulation (EU) No. 2015/2438 and in accordance with Commission Delegated Regulation (EU) No. 2016/2375** remain on the list despite the change in the reference period **and** continue being subject to the landing obligation in this fishery.

h) Fisheries in ICES divisions VIId and VIle for pollack

| Fishery | Gear Code | Fishing gear | Mesh Size | Landing Obligation |
|--|----------------------------------|------------------------------|------------------|--|
| Pollack (<i>Pollachius pollachius</i>) | GNS, GN, GND, GNC, GTN, GTR, GEN | All Trammel nets & Gill nets | All | All catches of pollack shall be subject to the landing obligation. |

i) Fisheries in ICES divisions VIIb, VIIc and VIIf – VIIk

| Fishery | Gear Code | Fishing gear | Mesh Size | Landing Obligation |
|-------------------------------------|----------------------------------|------------------------------|------------------|--|
| Common Sole (<i>Solea solea</i>), | TBB | All Beam trawls | All | All catches of common sole shall be subject to the landing obligation |
| Common Sole (<i>Solea solea</i>), | GNS, GN, GND, GNC, GTN, GTR, GEN | All Trammel nets & Gill nets | All | All catches of common sole shall be subject to the landing obligation. |

* Vessels listed as subject to the landing obligation in this fishery **in accordance with Commission Delegated Regulation (EU) No. 2015/2438 and in accordance with Commission Delegated Regulation (EU) No. 2016/2375** remain on the list despite the change in the reference period **and** continue being subject to the landing obligation in this fishery.

j) Fisheries in ICES divisions VIIb, VIIc, VIle and VIIf – VIIk

| Fishery | Gear Code | Fishing gear | Mesh Size | Landing Obligation |
|---|--|---------------------|------------------|---|
| Cod (<i>Gadus morhua</i>), Haddock (<i>Melagrammus aeglefinus</i>), Whiting (<i>Merlangius merlangus</i>) and Saithe (<i>Pollachius virens</i>) | OTB, SSC, OTT, PTB, SDN, SPR, TBN, TBS, OTM, PTM, TB, SX, SV, OT, PT, TX | Trawls & Seines | All | Where the total landings per vessel of all species in 2015 and 2016* consist of more than 10% of the following gadoids: cod, haddock, whiting and saithe combined, the landing obligation shall apply to whiting. |

* Vessels listed as subject to the landing obligation in this fishery in accordance with Commission Delegated Regulation (EU) No. 2015/2438 and in accordance with Commission Delegated Regulation (EU) No. 2016/2375 remain on the list despite the change in the reference period and continue being subject to the landing obligation in this fishery.

ANNEX Obis

Discard plan for certain deep-sea fisheries in North-Western waters

Fisheries subject to the landing obligation

Fisheries in Union and International waters of ICES subarea VI and division Vb

| | | | | |
|--|--|--------------------|------------|---|
| Black scabbardfish (<i>Aphanopus carbo</i>) | OTB, SSC, OTT, PTB, SDN, SPR, TBN, TBS, OTM, PTM, TB, SX, SV, OT, PT, TX | Trawls & Seines | ≥100 mm | Where the total landings per vessel of all species in 2015 and 2016 consist of more than 20% of black scabbardfish, the landing obligation shall apply to black scabbardfish. |
| Blue ling (<i>Molva dypterygia</i>) | OTB, SSC, OTT, PTB, SDN, SPR, TBN, TBS, OTM, PTM, TB, SX, SV, OT, PT, TX | Trawls & Seines | ≥100 mm | Where the total landings per vessel of all species in 2015 and 2016 consist of more than 20% of blue ling, the landing obligation shall apply to blue ling. |
| Grenadiers (<i>Coryphaeides rupestris</i> & <i>Macrourus berglax</i>) | OTB, SSC, OTT, PTB, SDN, SPR, TBN, TBS, OTM, PTM, TB, SX, SV, OT, PT, TX | Trawls & Seines | ≥100 mm | Where the total landings per vessel of all species in 2015 and 2016 consist of more than 20% of grenadiers, the landing obligation shall apply to grenadiers. |

Annex I

List of Vessels subject to a landing obligation determined by threshold criteria only

- Annexes 0 and 0 bis to this Joint Recommendation also includes landing obligations that will only apply where a vessel has had landings of a particular species or group of species above the relevant percentage threshold in the years 2015 and 2016.
- All vessels listed for 2016 and 2017 for a specified fishery remain on the corresponding list, whatever their percentage for the period 2015-2016.
- A Flag Member State shall determine the vessels that meet the threshold criteria determined for a particular fishery and which are, therefore, subject to the landing obligation for that particular fishery.
- The Flag Member State shall compile lists of all such vessels and the landing obligation(s) applicable to those vessels.
- Vessels to which the threshold criteria do not apply are not required to be included on the lists.
- Each Flag Member State shall transmit its lists to the secure EU Control website by 1st January 2018.
- Lists will be updated from time to time by the Flag Member State and any such amendment will have effect as soon as it is listed on the secure EU Control website.
- A vessel is deemed to be subject to the Landing Obligation if it meets one or more of the definitions set out in the Tables of Annex 0 or in the table of Annex 0 bis.
- The inclusion of a vessel on a list on the secure EU Control website shall be evidence (unless the contrary is shown) that that vessel is subject to a Landing Obligation determined by threshold criteria only.
- The exclusion of a vessel from a list on the secure EU Control website shall be evidence (unless the contrary is shown) that the vessel is not subject to a landing obligation determined by threshold criteria only.
- A vessel not on the list may be subject to one or more of the landing obligations in Tables of Annex 0 and 0 bis which are not determined by threshold criteria.

Annex II

Gear Code Acronym Table

| Gear Code | Type of gear |
|------------------|--|
| OTB | Bottom Otter Trawl |
| OTT | Otter Twin Trawls |
| OT | Otter Trawls (Not Specified) |
| OTM | Midwater Otter Trawl |
| PTB | Bottom Pair Trawl |
| PT | Pair Trawls (Not Specified) |
| PTM | Midwater Pair Trawl |
| TBN | Nephrops Trawl |
| TBS | Shrimp Trawl |
| TX | Other Trawls (Not Specified) |
| SDN | Danish Anchor Seine |
| SSC | Scottish Seine (Fly Dragging) |
| SPR | Scottish Pair Seine (Fly Dragging) |
| TB | Bottom Trawls (Not Specified) |
| SX | Seine Nets (Not Specified) |
| SV | Boat or Vessel Seine |
| TBB | Beam Trawl |
| GN | Gillnets (Not Specified) |
| GNS | Gillnets Anchored (Set) |
| GND | Gillnets (Drift) |
| GNC | Gillnets (Circling) |
| GTN | Combined Gillnets-Trammel Nets |
| GTR | Trammel Net |
| GEN | Gillnets and Entangling Nets (Not Specified) |
| LLS | Set Longlines |
| LLD | Drifting Longlines |
| LL | Longlines Not Specified |
| LTL | Trolling Lines |
| LX | Hooks and Lines (not specified) |
| LHP | Handlines and Pole Lines (Hand Operated) |
| LHM | Handlines and Pole Lines (Mechanised) |
| FPO | Pots |
| FIX | Traps (Not Specified) |

Annex III

High survival exemption for ‘undersized’ common sole (sole less than MCRS of 24cm) caught by 80-99mm otter trawl gears in ICES area VIId within 6 nautical miles of coasts, albeit outside identified nursery areas

Request under Article 15.4(b) of Regulation (EU) 1380/2013 to exempt from the landing obligation common sole (solea solea) of less than 24cm in length caught in 80-99mm otter trawl gears in ICES area VIId within 6 nautical miles of the coastline.

To note:

1. This evidence is submitted in order to ensure the continuation of a high survival exemption currently in place in the North Western Waters, as outlined in the Commission delegated regulation (EU) 2016/2375 (Article 2). The Commission has requested additional scientific information by 1 May 2017 for STECF to consider before 1 September 2017.
2. The evidence supporting this request is for a very specific fishery occupying the zone within the 0-6 nautical miles of the western coast of IVc and the northern coast of VIId. If this exemption was granted for 2018 Member States may work to identify similar fisheries where it may be appropriate for the exemption to apply in future years.
3. This exemption is being requested for continuation in both the North Sea (area IVc) and North Western Waters (area VIId) through the Scheveningen and North Western Waters regional groups respectively. This is due to the similarities in the South East England inshore fleet, its fishing activities and environmental conditions across the two sea areas. Some evidence below refers to both sea areas together, but it is the intention that the exemption request for each sea area be considered and proposed by each regional group separately.

Summary

Article 15.4(b) of Regulation (EU) 1380/2013 on the Common Fisheries Policy states that the landing obligation shall not apply to:

“species for which scientific evidence demonstrates high survival rates, taking into account the characteristics of the gear, of the fishing practises and of the ecosystem;”

The North Western Waters regional group notes that scientific evidence demonstrates a survivability rate of 82-89% (80-87% with avian predation rates applied) [1] for common sole (*solea solea*):

- (i) of length less than the Minimum Conservation Reference Size (MCRS) of 24cm;

- (ii) caught by vessels using 80-99mm otter trawl gears;
- (iii) within 6 nautical miles of the coast in ICES area VIId;
- (iv) caught by vessels with a maximum length of 10 meters;
- (v) caught by vessels with a maximum engine power of 221kW;
- (vi) caught by vessels fishing in waters with a depth of 30 meters or less;
- (vii) caught by vessels with limited tow durations of no more than 1:30 hours;

and recommends that catches of common sole meeting this definition should be exempt from the landing obligation on grounds of high survival rates, as provided for by Article 15.4(b) Regulation (EU) 1380/2013. This will minimise unwanted mortality of the small number of under MCRS common sole that are unavoidably caught in a highly selective inshore fishery.

The study undertaken by the Centre for Environment, Fisheries and Aquaculture Science (Cefas) that demonstrated this high discard survivability also recorded the vitality of common sole once brought on-board the vessel, and analysed the probability of their survival as a function of this. This new study (conducted in area VIId) builds on the evidence gathered in a previous study (conducted in area IVc and where a survival rate of 51% for below MCRS sole was demonstrated) [2] and takes account of conditions that are more representative of the specific sole fishery concerned. The demonstration of a higher survival rate supports the previous hypothesis that a higher rate would be seen in conditions more representative of the very weedy and shallow waters this sole fleet operates in.

The South East England inshore common sole trawl fishery is defined by a common métier and target species. Fishing activity and marine conditions are similar throughout, and it would therefore be appropriate for an exemption to span the two ICES sea areas.

There are 143 vessels across both the North Sea and the North Western Waters that would be affected by this survivability exemption, responsible for a total landing of common sole of under 160 tonnes in 2015. Cefas observer programmes between 2013 and 2015 place approximate discard rates of undersized sole in this fishery at 1% of total catches and 4% of common sole catches. Updated Cefas data on catch and discard patterns [3] also show a discard rate of 1% in sole targeting observed trips, as well as demonstrating that the survival trials are representative of this specific sole fishery. If granted, this survivability exemption is estimated to result in a maximum annual discard biomass of undersized sole of approximately 6.7 tonnes, of which a minimum of 5.9 tonnes should survive. For context, the 2017 common sole TAC is set at 16,123 tonnes in the North Sea, and 2,724 tonnes in VIId (North Western Waters).

The low catch rate of undersized sole indicates that the gear used by vessels in the fishery is already highly selective against undersized sole, and improvements in avoidance are difficult to achieve safely and economically due to the small size and limited range of the majority of these vessels. The low biomass involved and the significant survival rate for undersized sole ensures that the risk of unintended negative consequences is minimal.

Very specific criteria have been used to define the fishery that the existing exemption applies to. It was agreed that the fleet that can use this exemption should closely meet the attributes of the vessel used in the first study [2]. The evidence from the new study [1] provides support to revise two of these criteria – the exemption could be extended to include fishing vessels of up to 221 kW power and those fishing at depths up to 30 meters.

Key Information

| | |
|---------------------------|--|
| Exemption target: | Common sole (<i>solea solea</i>): <ul style="list-style-type: none">(i) of length less than MCRS of 24cm;(ii) caught by vessels using 80-99mm otter trawl gears;(iii) within 6 nautical miles of the coast in ICES areas VIIId and IVc;(iv) caught by vessels with a maximum length of 10 meters;(v) caught by vessels with a maximum engine power of 221kW (revising the existing maximum engine power of 180kW);(vi) caught by vessels fishing in waters with a depth of 30 meters or less (revising the existing maximum depth of 15 meters); and(vii) caught by vessels with limited tow durations of no more than 1:30 hours. |
| Exemption grounds: | High survivability. |
| Survivability rates [1]: | 82-89% overall survival rate for undersized sole. (80-87% when rates of estimated avian predation were applied.) 79% for the whole sole catch. |
| Stock health [4] [5] [6]: | Although separate management stocks, the IVc and VIIId common sole stocks overlap geographically and are genetically homogenous. Stock health varies across the fishery: in IVc, the spawning stock biomass has increased since 2007 and the fishing mortality steadily decreased since 1997, whereas in VIIId the spawning-stock biomass has fluctuated without trend since 2002 and the fishing mortality increased in 2013 and 2014. |
| Vessels affected: | 143 total: 72 in IVc only, 52 in VIIId only, and 19 fishing in both. |

| | |
|-------------------|--|
| Discard rate: | Discard rates of undersized sole in the South East England inshore otter trawl fishery are estimated to be on average 1% of total catches, or 4% of total common sole catches. |
| Biomass affected: | Annual landings of common sole caught in the area covered by this exemption are estimated to be under 160 tonnes. Based on the current discard rates, the annual biomass of undersized common sole covered by this exemption would be a maximum of around 6.7 tonnes. |
| Risk assessment: | The risk of an increase in common sole mortality due to this exemption is expected to be minimal. The low discard rate of undersized common sole indicates that the gear and fishing practices currently in use are already highly selective, and the low total biomass of undersized common sole caught indicates that any additional effort enabled by the exemption will be negligible. |

The South East England inshore common sole trawl fishery

Solea solea—a.k.a. sole, common sole, Dover sole, or black sole—is a commercially valuable species of flatfish in the Soleidae family. Total landings of common sole by UK vessels into England amounted to 1,800t in 2014 with a commercial value of £12.2m (around €15.2m), making it by far the highest valued demersal fishery in England, with a value almost 50% higher than the second-highest valued, anglerfish [7]. Of this, less than 160 tonnes are caught across IVc and VIId in the South East England inshore common sole trawl fishery¹, with the majority found in the shallow waters of the eastern English Channel and Greater Thames Estuary, where depths are typically under 15 metres (see attached bathymetry maps). Sole is present in both ICES areas all year around, though each area has a season for fishing sole running from April to October/November. Peak season is between July and September.

¹ The total biomass of common sole landed by non-sector UK vessels in IVc and VIId in 2015 was 159.4 tonnes. A length restriction by the Southern Inshore Fisheries and Conservation Authority (IFCA), as well as the shallow depth of the fishery (typically around 15m), prevent vessels larger than around 12m in length from trawling within 6 nautical miles of the coast. Very few vessels in this length range are represented by producer organisations, so in this case non-sector landings are a good proxy for total landings. On the other hand, some of these non-sector vessels do fish beyond 6 nautical miles, and so the figure of 159.4 tonnes is thought to be an overestimation for the total biomass of common sole caught within the South East England inshore common sole fishery.

Table 1: 80-99mm mesh otter trawl common sole landings for non-sector vessels in IVc and VIId (2015 data)

| Area | Number of vessels | Biomass (tonnes) | Value (£) |
|-------|-------------------|------------------|-----------|
| IVc | 91 | 121.6 | 564,000 |
| VIId | 71 | 37.7 | 235,000 |
| Total | 143 ² | 159.4 | 799,000 |

The vessels which operate within this fishery are predominately part of the English non-sector/small-scale fleet: they are not part of a producer organisation and they fish against restricted monthly catch limits, managed by England’s Fishing Administration, the Marine Management Organisation (MMO). Common sole provides a valuable income for the inshore trawl fishery (**Error! Reference source not found.**). Of the vessels which landed common sole in 2015, 79% are 10 metres or under in length. Many of these vessels have fairly basic on-board equipment, and so from a safety and an economic perspective are restricted to operating within their local area, making avoidance techniques difficult to implement. The adoption of spatial measures to avoid undersized common sole is further complicated by the lack of any known spawning concentrations in UK waters in the eastern Channel [8] [9].

The trawl designs and mesh size used by the South East England inshore common sole trawl fishery are well suited to shallow water and are highly selective for common sole, in keeping with the latest reform of the Common Fisheries Policy, which identified the reduction of discards and bycatch as a key objective [10]. The vessels use an 80–99mm mesh trawl with a very low headline height (usually less than 750mm) and the trawl doors and centre skids are small and lightweight, thereby minimising round-fish bycatch. 80mm mesh size trawls are effective at selecting out undersized common sole, however despite this some are sometimes still caught, especially when seaweed and other debris—often found in the shallow waters of the fishery—unpredictably alter the selectivity during the trawl. To mitigate this and allow cleaning of the net, tow times in the shallower waters are typically limited to 1–1.5 hours.

80mm mesh limits undersized common sole bycatch to on average 1% of the total catch, or 4% of the common sole catch³, which puts the total annual biomass of undersized common

² The total (143) is not the sum of the numbers of vessels fishing in IVc (91) and VIId (71), because 19 of those vessels fish in both.

³ The ICES InterCatch database actually lists discards for English vessels as 0.0% [13], however this includes many vessels not subject to this exemption and so effectively hides discards by this fleet segment as it catches only a small proportion of the total caught biomass of common sole. The figure used here is from a Cefas

sole caught by these vessels at around 6.7 tonnes⁴ (of which 5.1 tonnes is caught in IVc and 1.6 tonnes in VIId). Attempts to reduce this by increasing the mesh size would lower catches of common sole above MCRS, rendering the trip uneconomical for these small inshore vessels for whom common sole is the smallest species they are targeting. For context, the 2016 common sole TAC is set at 13,262 tonnes in the North Sea, and 3,258 tonnes in VIId.

Table 2 provides more detail on the landings made into the ports where the specific inshore fleet concerned operate

| Port | Total number of vessels operating in area | Number of trips | Landings (tonnes) |
|----------------------------------|---|-----------------|-------------------|
| <i>Area VIId – Solent</i> | | | |
| Portsmouth | | 369 | 6.85 |
| Cowes | | 26 | 3.3 |
| Isle of Wight | | 1 | 0.008 |
| Poole | | 2 | 0.02 |
| VIId total | 12 | 398 | 10.18 |
| <i>Area IVc – Thames Estuary</i> | | | |
| Leigh-on-Sea | | 97 | 6.053 |
| Canvey Island | | 7 | 0.147 |
| Newhaven | | 5 | 0.35 |
| Rochford | | 5 | 0.074 |
| Felixstowe | | 2 | 0.206 |
| Great Wakering | | 2 | 0.003 |
| Brightlingsea | | 1 | 0.005 |
| Harwich | | 1 | 0.005 |

observer programme across 14 trips on board otter trawls in IVc between 2013 and 2015, which put average discard rates of undersized common sole at 1% of total catches and 4% of common sole catches.

An additional 14 trips were carried out on board otter trawls in VIId in this time period, giving an average discard rate of 0.3%; these trips however were not exclusively over the sole fishery grounds, and so we use the higher discard rate found in IVc as indicative of the fishery as a whole.

⁴ Based on 2015 landings data (see footnote 1) and the Cefas observer programme discard rate (see footnote 3). 4% of the total common sole catch is undersized, so the 160 tonnes landed represents 96% of the total common sole catch. 160 tonnes divided by 96% gives 6.67 tonnes undersized common sole caught.

| | | | |
|-------------------------|-----------|------------|-------------|
| King's Lynn | | 1 | 0.008 |
| Southend-on-Sea | | 1 | 0.046 |
| Zeebrugge | | 1 | 0.072 |
| <i>IVc total</i> | 30 | 123 | 6.97 |

The Cefas common sole survivability study (summary)

Cefas was commissioned to provide additional scientific information to support the exemption awarded in 2017 (Commission Delegated Regulations (EU) 2016/2375 and 2016/6272) and assess and estimate the survivability of the sole caught in the inshore otter trawl fishery.

The approach they selected was to use vitality (health) assessments of common sole caught under normal fishing conditions and to combine information with captive observation of selected individual common sole with different vitality. With this data Cefas were able to estimate a weighted overall mortality for common sole due to fishing activity, as well as discard survivability rates for common sole as a function of their health when caught.

Vessel and gear

The vessel used for this trial was a catamaran twin trawler 6.6m overall length with a 221kW engine. The trawler uses 86mm cod-end mesh size. The vessel is considered to be a typical under 10m trawler in ICES area VIId.

Fishing activity

The sea trials were carried out in the Solent (ICES division VIId rectangle 30E8 (Figure 1) at depths ranging between 14 and 29m w. Due to fishing condition, the sea trials were split into two seasons. In the first trial season (4th-8th August 2016), the fishing activity was constrained by the amount of seaweed on the fishing ground, which resulted in shorter tows (on average 22 minutes' duration), while in the second trial (17th-22nd October 2016) the tows were longer and reflected more the most common practiced for this fishery (approximately 1-1.5 hours).

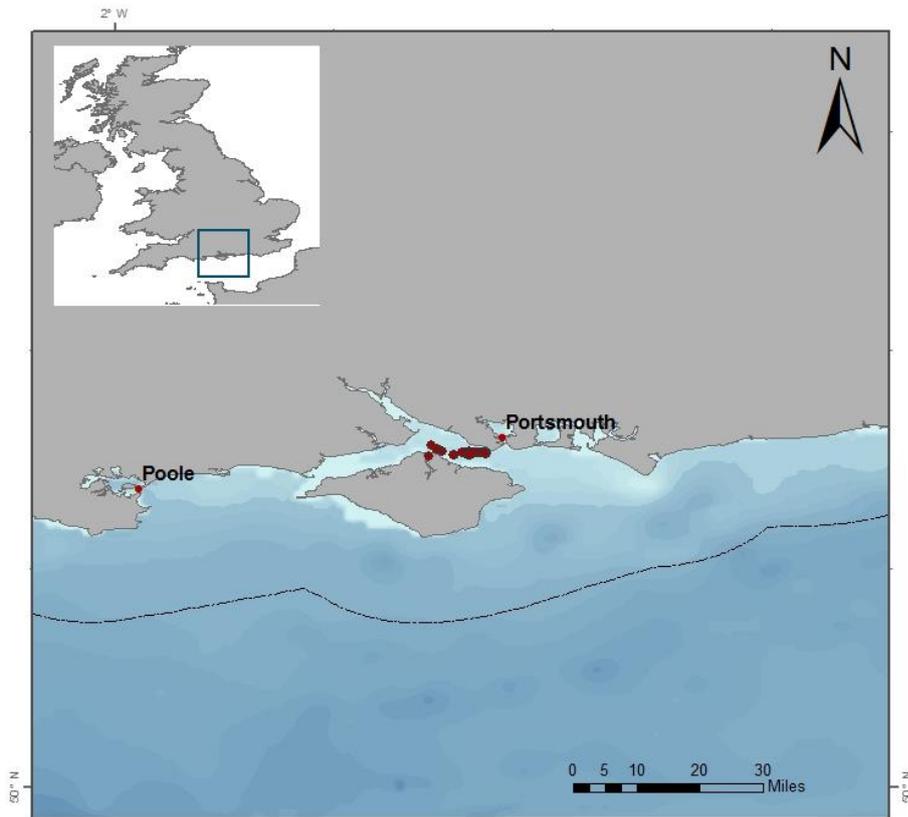


Figure 1: Locations of the fishing hauls in the study

A proportion of the sole caught were assessed for vitality immediately after the period of catch sorting, with some fish being selected for holding tanks. The usual process on board the vessel is to discard all unwanted fish in bulk at the end of the sorting catch, so vitality assessment commenced at the point that discarding would normally have occurred. Fish were selected for holding tanks based on needing to fish to represent the full range of vitalities and of different lengths, so that they could be individually identified.

Catch data

The catch weight for sole was 159kg with a landed weight of 125kg. The discard rate was 34kg which represented 21% of the catch weight. In terms of the total catch, this represents 18% of catch weight, 20% of retained catch and 6% of discards.

Table 3: Catch data from the sole discard survival assessment (pooled across trips)

| Species | Landed Weight (kg) | Discard Weight (kg) | Catch Weight (kg) | Discard rate | Percentage of retained | Percentage of discards | Percentage of catch |
|------------------------|--------------------|---------------------|-------------------|--------------|------------------------|------------------------|---------------------|
| Sole | 125 | 34 | 159 | 21% | 20% | 6% | 18% |
| Bib pouting | 89 | 28 | 117 | 24% | 14% | 13% | 14% |
| Lesser spotted dogfish | 26 | 25 | 51 | 48% | 13% | 26% | 15% |

| | | | | | | | |
|--------------------|----|-----|-----|------|-----|-----|-----|
| Thornback ray | 18 | 27 | 46 | 60% | 10% | 28% | 12% |
| Plaice | 9 | 0 | 9 | 0% | 9% | 2% | 8% |
| Red Mullet | 6 | 0 | 6 | 0% | 8% | 16% | 9% |
| Spotten ray | 6 | 64 | 70 | 92% | 7% | 0% | 6% |
| Cod | 5 | 0 | 5 | 0% | 6% | 0% | 5% |
| Brill | 2 | 0 | 2 | 0% | 3% | 0% | 2% |
| Pollack | 1 | 0 | 1 | 0% | 3% | 0% | 2% |
| Undulate ray | 0 | 302 | 302 | 100% | 2% | 5% | 2% |
| Edible crab | 0 | 2 | 2 | 100% | 2% | 0% | 2% |
| Blonde ray | 0 | 2 | 2 | 100% | 2% | 0% | 2% |
| Starry smoothhound | 0 | 17 | 17 | 100% | 1% | 3% | 2% |
| Spider crab | 0 | 31 | 31 | 100% | 1% | 0% | 1% |

Vitality assessment

Once the common sole were sorted, each individual was measured and scored using a pre-defined assessment protocol. The health or vitality of each fish was assessed using two methods: a semi-quantitative assessment of the vitality of the individual fish, and a semi-quantitative reflex and injury scoring method. The vigour assessment was based on four ordinal classes that are defined with a class at one extreme characterising very lively and responsive fish (E, excellent), and at the other extreme, a class characterising unresponsive fish (D, dead), with good and poor fish as intermediate categories (G and P respectively).

Table 4: Survivability and catch profile of study by vitality assessment for control, experimental and undersized fish

| Vitality assessment | Proportion of control fish at each vitality in study | Survivability probability (%) |
|---------------------|--|-------------------------------|
| Excellent | 0.86 | 93.8 |
| Good | 0.11 | 85.7 |
| Poor | 0.01 | 0.0 |
| Dead | 0.01 | 0.0 |

| Vitality assessment | Proportion of experimental fish at each vitality in study | Survivability probability (%) |
|---------------------|---|-------------------------------|
| Excellent | 0.68 | 94.7 |
| Good | 0.30 | 77.9 |
| Poor | 0.01 | 0.0 |
| Dead | 0.01 | 0.0 |

| Vitality assessment | Proportion of undersized common sole at each vitality in study | Survivability probability (%) |
|---------------------|--|-------------------------------|
| Excellent | 0.74 | 93.8 |
| Good | 0.24 | 85.7 |
| Poor | 0.01 | 0.0 |
| Dead | 0.01 | 0.0 |

Common sole were also scored by the presence or absence of six reflexes; head complex; belly bend; orientation; tail grab; evade and ventilation. A reflex action was scored as unimpaired (0) when it was strong or easily observed, or impaired (1) when it was not present or if there was doubt about its presence. An injury score based on the presence of different injury types was also recorded. Injuries were scored as absent (0) when not present or there was doubt about its presence, and present (1) when clearly observed.

Vitality composition

From all the common sole considered in this study (967), 8 (0.8%) were dead when assessed at the point they would be discarded. The remaining fish were scored as either excellent (71%pt), good (28%pt) or poor (1%pt). When considering only the common sole under minimum landing size (i.e. under 24cm in length), the vitality score profile does not change appreciably, with 74% of the catch considered excellent, 24% as good, 1% as poor and as dead (**Error! Reference source not found.4**).

Survival of captive fish

A proportion of fish at each of these vitality scores was selected (by length) for on-board observation tanks. In total, 290 fish were captive for the survival experiment. Fish were held in captivity for 336 hours (2 weeks): survival for common sole was 95% for common sole in excellent health, 78% for common sole in good health, and 0% for common sole in poor health. When weighted to the proportion of the each vitality category of the total catch, the

estimated overall survival probability during the observed period was 89% for the undersized common sole and 88% for the whole catch.

Factors influencing discard survival

The use of a binomial GLM model showed that common sole with impaired orientation and tail grab had a significant higher mortality than unimpaired common sole. The impairment of these two reflexes showed significant association with the proportion of dead to alive fish.

In this study, the injuries most commonly found in common sole were abrasion, bruising fin and fin fraying with 64%, 47% and 22%, respectively, of the fish sampled suffering with these injuries.

Conclusion

There is sufficient evidence for this proposal for a high survivability exemption for common sole that are:

- (i) of length less than the Minimum Conservation Reference Size (MCRS) of 24cm;
 - (ii) caught by vessels using 80-99mm otter trawl gears;
 - (iii) within 6 nautical miles of the coast in ICES areas VIIId and IVc;
 - (iv) caught by vessels with a maximum length of 10 meters;
 - (v) caught by vessels with a maximum engine power of 221kW (revising the existing maximum engine power of 180kW);
 - (vi) caught by vessels fishing in waters with a depth of 30 meters or less (revising the existing maximum depth of 15 meters); and
 - (vii) caught by vessels with limited tow durations of no more than 1:30 hours.
- scientific evidence shows the survival rate for discarded undersized common sole is at least 82 to 89%;
 - this study follows a previous study undertaken on the English south east coast (ICES Subarea IVc) in the inshore sole otter trawl fishery;
 - the gear and techniques used in the fishery are already highly selective, and increased selectivity or avoidance is difficult to achieve safely and economically;
 - the return of juvenile common sole will support improvement of future spawning numbers, which is particularly important given the unstable spawning biomass in VIIId, as well as improving their yield when subsequently harvested; and
 - the risk of unintended negative effects is inherently limited by the low biomass of undersized common sole caught.
 - If this exemption was granted for 2018 Member States may work to identify similar fisheries where it may be appropriate for the exemption to apply in future years. Any extension to the exemption would have to be scientifically justified and would be submitted to STECF for review.

Table 5: Completed STECF table for high survivability proposal

| Country | Exemption applied for (species, area, gear type) | Species as bycatch or target | Number of vessels subject to the landing obligation | Landings (by landing obligation subject vessels) | Estimated Discards | Estimated Catch | Discard Rate | Estimated discard survival rate from provided studies |
|---------|--|----------------------------------|---|---|--|--|---|---|
| UK | Undersized sole caught by inshore TR2 fleet (10m and under vessels) operating within 6nm of coasts (see further criteria specified above on page 11) in areas IVc and VIId | Sole is targeted in this fishery | 143 vessels in total (based on 2015 data): 72 in area IVc only 52 in area VIId only 19 fishing in both areas | Estimated sole landings by all TR2 vessels in IVc and VIId: 160 tonnes | Maximum of 6.7 tonnes in IVc and VIId | 167 tonnes in IVc and VIId | Undersized sole has an estimated discard rate of 1% of total catches or 4% of total sole catches (based on 2013 to 2015 data). See also the attached catch data document compiled in April 2017. | 82 – 89% for undersized sole 80 – 87% for undersized sole with avian predation rates applied |
| FR | Undersized sole caught by inshore TR2 fleet (10m and under vessels) operating within | Sole is targeted in this fishery | 30 vessels (<10m and <221 kW) in total (based on 2015-2016 | Estimated sole landings by all TR2 vessels in IVc and VIId (for 2015 <u>and</u> | Maximum of 1.2 tonne in IVc (for 2015 <u>and</u> 2016) | 7.5 tonnes in IVc (for 2015 <u>and</u> 2016) 83.6 tonnes in | Sole has an estimated discard rate of 2.2% of total catches or 19% | |

| | | | | | | | | |
|--|-------------------------------------|--|---|--|---|---------------------------------|---|--|
| | 6nm of coasts in areas IVc and VIId | | data): 1 in area IVc only 27 in area VIId only 2 fishing in both areas | 2016): 6.3 tonnes in IVc 70.3 tonnes in VIId | Maximum of 13.4 tonnes in VIId (for 2015 <u>and</u> 2016) | VIId (for 2015 <u>and</u> 2016) | of total sole catches (of which approximately 70% are undersized sole (based on 2013 to 2015 data). | |
|--|-------------------------------------|--|---|--|---|---------------------------------|---|--|

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- [1] P. Randall, A.R. Santos, C. Firmin, H. O’Sullivan, E. White and T. Catchpole, “Assessing the survival of discarded sole (*Solea solea*) in an English inshore trawl fishery”, Cefas, 2017.
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Additional information can also be found in the following studies:

 Cefas scientific study on sole survival 2017 data 21042017.docx  Cefas Sole catch data 21042017.docx  IVC East Anglia bathymetry - sole.pdf  Thames bathymetry - sole.pdf

