**Overview**

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| **Fishery name:** North Sea Lemon Sole and Plaice | | **Start date:** 01 January 2017 |
| **Fishery location:**  ICES Subarea 4 (North Sea) and Subdivision 3.a.20 (Skagerrak).  *(SG to confirm whether 7d Eastern Channel to be included in line with ICES Stock advice.* **Action: IG to provide LS landing data by ICES area and gear type**) | **Fishing method:**  Seine  Demersal trawl  **UoA vessels**: SFSG members + Osprey Trawlers vessels. | **Annual reviews:**  End Year 1: January 2018 Review Completed March 2018  End Year 2: January 2019 Review Completed April 2019  End Year 3: January 2020 Review Completed April 2020 (this version)  End Year 4: January 2021  End Year 5: January 2022 |
| **Project leaders**:  Project UK Fisheries Improvements – Stage 1 | | **Improvements recommended by:** |
| **Overview of the Action Plan (updated for v 4.1):**  **P1:** Plaice P1 action is completed through the adoption of North Sea Demersal Multi-Annual Plan (MAP) in 2018. The FIP will maintain a watching brief on the relevant P1 conditions for certified North Sea plaice fisheries (incl. SFSAG joint demersal North Sea with its follow-on condition).  Lemon sole is managed under a precautionary combined TAC for lemon sole and witch. ICES states that "Management of lemon sole and witch under a combined species TAC prevents effective control of the single-species exploitation rates and could potentially lead to overexploitation of either species". Stock assessments in 2017 & 2018 provided fishing pressure & biomass reference points, but as of 2019 only ref points in relation to fishing pressure have been defined (i.e. no biomass reference points). The North Sea MAP forms the basis of the Harvest Strategy for lemon sole.  **P2:** Catch composition was defined for the UoAs to highlight ‘main’ primary and secondary species. The priority action (i.e. to address those PIs not currently meeting 60) was on the management of main secondary species: Nephrops & monkfish, which are named species in the North Sea MAP. Nephrops is the subject of a Project UK Stage 2 FIP and monkfish is the subject of a Seafish FIP.  **A review of alternative measures to reduce unwanted catch** was carried out, which is to be finalized and discussed with fishery managers.  Actions required under P2 will further develop an **ETP strategy** which will improve information, management and help to inform status of ETP species interacting with the fishery.  Following the completed habitat assessment, further work was undertaken to identify where a **Habitat Management Strategy** may be required to manage the impact of the fishery on VMEs and commonly encountered habitats.  **P3:** The North Sea Demersal Multi-Annual Plan (MAP) is now adopted and includes plaice specifically, but treats lemon sole as a bycatch species.  The MSC fisheries management plan template was used to develop a **Fisheries Management Plan for lemon sole** to ensure 3.2.1 is met.   |  |  |  |  | | --- | --- | --- | --- | | **Colour code in tables below:** | **Principle 1** | **Principle 2** | **Principle 3** | | | |

**Annual Review (end of year 3)**

This section, prepared by Rod Cappell of Poseidon, summarises the annual review process at the end of year 3 in a five year Fisheries Improvement Project (FIP) for the UK North Sea lemon sole & plaice fishery (see previous page). The report provides a review of the progress made to date and what further actions need to be taken in year 4.

**Main findings**

The FIP for the North Sea lemon sole and plaice fisheries continues to progress, but is somewhat behind the expected milestones set for year 3. The SG agreed that the UoA should include area VIId as some catch is from this area and the implications of including this area for information collated to date is now being explored. Despite changes to the lemon sole ICES assessment, re-scoring as part of this annual review has indicated that stock status (1.1.1) and assessment (1.2.4) continue to meet SG80 or above. Some progress has been made in exploring what additional Harvest Strategy and associated HCR & tools may involve, with industry discussions needed in year 4. This year North Sea cod’s MSC certificate was suspended as the stock dropped below Blim. A strategy is in place, but the result is a reduced score on 2.1.1. There is progress in addressing management of main secondary species for the trawl UoA through the Nephrops FIP, but the Devil’s Hole FU remains below SG80. Appropriate alignment is needed on ETP lists across FIPs and on current actions across UoA fleets (SFSAG and Osprey). The outcome and management of ETPs are therefore behind schedule until this is clarified. Habitat actions are also now behind schedule as it is still to be confirmed if additional habitat management actions are needed. P3 actions focus on addressing Fisheries Specific Management, which is being progressed through the drafting a Fisheries Management Plan.

**Recommended actions in year 4**

Critical externalities (the Covid-19 crisis and Brexit) will make it challenging to progress FIP actions as intended in year 4.

The SG should identify gaps in information resulting from the decision to include ICES sub-Area 7d and how those gaps should be filled. This should come from existing information wherever possible (e.g. existing certificates or FIPs covering this area) and data from UoA vessels.

As a change to a single species TAC is unlikely for lemon sole in the next two years, the key action in year 4 is to progress the development of the Harvest Strategy and Harvest Control Rules and Tools for the fishery. These should detail (in relatable terms to the MSC standard) what measures would be introduced and when to ensure ongoing delivery of the North Sea MAP objectives. The remaining tasks will feed into the drafting of the Fisheries Management Plan (FMP), which should contribute to the management of the fishery by the UK as it continues to operate under the North Sea Demersal MAP. General management will need to be reviewed when management arrangements are confirmed for the UK no longer operating under the EU’s Common Fisheries Policy. The FMP will also help to organise the information collated and developed by the FIP in preparation for the fishery to enter full assessment on completion of the FIP.

**Table 1: Action Plan**

| **Standard requirement** | **Actions/leads** | **Timescale / milestones** | Progress / outcome | **Revised milestone** |
| --- | --- | --- | --- | --- |
| **Action 1: Stock status (lemon sole)**  **Overview**  Stock area identification and providing basis for management  **Performance indicator**   * + 1. Stock status   **≥80**  1.2.4 Stock assessment  **≥80**  Requirement at SG80:  1.1.1 Stock Status (lemons)  It is **highly likely** that the stock is above the PRI.  The stock is at or fluctuating around a level consistent with MSY.  1.2.4 Assessment of stock status  - The assessment is appropriate for the stock and for the harvest control rule.  - The assessment estimates stock status relative to reference points that are appropriate to the stock and can be estimated.  - The assessment takes uncertainty into account.  - The assessment of stock status is subject to peer review. | Lemon sole stock assessment review  SG to review ICES advice.  **In the absence of a stock assessment with reference points the RBF is used and a ‘high risk’ score is likely leading to a fail.**  **Use of RBF gives a default 80 for 1.2.4.** | **1a.** Yr 1: Stock Assessment review | **Complete**  Explore current status & European interest via the Advisory Council.  Review current information levels to determine requirements for stock assessment.  By end of year 1, 2017 ICES advice provided reference points showing stock highly likely to be above PRI.  The assessment was also expected to achieve 1.2.4 SG80 level | None |
| **1b.** Yr 4: Review stock assessment.  Review latest ICES advice (expected June 2020) to determine if any changes and implications for scoring. | **On target**  A new review is required due to the latest ICES assessment, published in June 2019, which no longer defines biomass reference points. However, reference points remain for F and ICES assesses it to be below FMSY.  Actions:  **LR to keep a watching brief on development of reference points for *LS* and inform the group of any useful updates**  The annual review re-scored these PIs:  1.1.1 Stock Status (>80 continues to be ahead of target)  F can be used as a proxy where biomass reference points are not available.  The Length-Based Indicator (LBI) analysis suggests that fishing mortality is below proxies of the MSY reference points (ICES, 2019)  GSA 2.2.4: *At least an 80 score is justified (B highly likely above the PRI and at or fluctuating around BMSY ) if F is likely to have been at or below F MSY for at least two generation times (or for at least four years, if greater).*  Fishbase gives age at maturity for lemon sole in North Sea as 4 years.  Figure 2 (ICES, 2019) shows the LBI index ratio to have been above 1 (and therefore below the FMSY proxy) since at least 2002. Therefore, it is considered that 1.1.1 continues to score >80.  1.2.4 Assessment of Stock status (>80 continues to be ahead of target)  ICES (2019) revised the assessment following a benchmark in 2018 where ICES explored the appropriateness of the assessment in relation to the stock, which remains a category 3 (data limited) stock. While the resulted in no B reference points being presented, a Length Based Indicator (LBI) is used to determine fishing mortality in relation to MSY and F reference points continue to be presented.  a.80 The assessment is appropriate for the stock and the harvest control rule (Y)  b.80 The assessment estimates stock status relative to reference points that are appropriate to the stock and can be estimated (Y)  c.80 The assessment takes uncertainty into account (Y)  e.80 The assessment of stock status is subject to peer review (Y). | Added in v4.1 |
| **Action 2: Harvest Strategy (lemon sole)**  **Overview**  Develop harvest strategy & appropriate HCR & tools.  **Performance indicator**  1.2.1 Harvest Strategy  **60-79**  1.2.2 HCRs & tools  **60-79**  Requirement at SG80:1.2.1 Harvest Strategy  The harvest strategy is responsive to the state of the stock and the elements of the harvest strategy **work together** towards achieving stock management objectives reflected in PI 1.1.1 SG80.  The harvest strategy may not have been fully **tested** but evidence exists that it is achieving its objectives.  1.2.2 Harvest Control Rules and tools  Well-defined harvest control rules are in place that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as limit reference points are approached. | **Change to a lemon sole TAC**  SWFPA to provide AC updates.  For harvest strategy and HCRs to be sufficiently responsive to the state of the stock, a single species TAC is required. | **2a.** YR1: Discussion with the North Sea AC. | **Completed**  MP to review AC discussions in relation to single species TAC.  With the introduction of the Landing Obligation the AC was exploring options for potential choke species like lemon sole, including removal of TAC which is at odds with SG intentions. | None |
| **2b** Yr2 Agreement on changes to the TAC arrangements. | **Completed**  In 2019 ICES provided advice to the EC that the removal of TAC for lemon sole would not risk the sustainability of the stock. However, no stated intent to do so by EC and the TAC remains in place for 2020.  The introduction of the North Sea MAP, in July 2018, and the continuation of a precautionary TAC for lemon sole (being responsive to the state of the stock) suggest that the Harvest Strategy could reach SG80 when there is evidence it is achieving its objectives. | Added v3.2 |
| **2c.** YR4: exploration of single species TAC | **On target** (as due end of Yr 4)  Adhering to the North Sea Demersal MAP using a single species TAC for lemon sole remains the simplest approach to achieving SG80 for HS and HCRs. However, no such change is likely in the timeframe of this FIP.  The next available advice will be June 2020 with the new ICES advice and EU decision on fishing opportunities later in the year.  IG advised that with Brexit the UK will have the flexibility from 2021 to adopt its own measures, including single species TACs. With the downturn in cod status, lemon sole is less of a priority for action so change is unlikely. | Added v3.2 |
| **2d** Yr 4. Review of alternative Harvest Strategy, HCR and tools | **On target**  With change to a single species TAC unlikely in the next two years, alternative approaches are required to ensure SG80 is met. It is proposed these focus on additional measures in line with the North Sea MAP for bycatch species.  HCRs need to be well-defined to ensure exploitation rates reduce as limit ref points are approached. The actions to be taken need to be formalised. Fishers and their representatives are to be asked what measures would be workable and acceptable to see exploitation rate is reduced.  These additional measures can then be stated in the Lemon Sole Fisheries Management Plan (Action 7). | Added v4.1 |
| **Action 3: Secondary species**  **Overview**  Additional information on secondary species needed.  **Performance indicator**  **2.2.1 Outcome**  **60-79**  **2.2.2 Management**  **60-79**  **2.2.3 Information**  **>80**  Requirement at SG80: **2.2.1** Main secondary species are **highly likely** to be above biologically based limits  **OR**  If below biologically based limits, there is either **evidence of recovery** or a **demonstrably effective partial strategy…**  2.2.2  There is a partial strategy in place, if necessary, …  There is some objective basis for confidence that the measures/ partial strategy will work…  … is being implemented successfully | **Catch Composition Review**  Cefas commissioned task.  Explore main species status and management (P2 stocks required to be above Blim)  Where other FIPs are addressing P2 species, harmonise. | **3a**. Yr 1 Catch composition review | **Completed**  Cefas were commissioned to provide a comprehensive review of catches by UoC vessels to determine catch composition and with it identify what the MSC standard would consider to be ‘main’ primary and secondary species. It identified two species in the trawl UoA catch profile that would be considered ‘main’ secondary species:  Nephrops and Monkfish  Cefas were also asked to assess *Nephrops* status in relation to 2.2.1 requirements. Stock status for the ten relevant Functional Units in the North Sea were provided. Six of these were data limited stocks (DLS) and the stock status unknown. | Revised yr2 due to delay. |
| **3b** Yr 4 Align PA outcomes and actions with Nephrops FIP | **On target**  Review Pre-Assessment and FIP actions to ensure outcomes are harmonised.  Nephrops is a Stage 2 FIP being progressed by Project UK since 2019. | Added v4.1 |
| **3c** Yr4 Align PA outcomes and actions with Monkfish FIP | **On target**  Review PA and FIP actions to ensure outcomes are harmonised.  Monkfish is a FIP being led by Seafish since 2019 – progress uncertain. | Added v4.1 |
|  | **Actions:**   * SG to keep a watching brief on progress in the *Nephrops* FIP and the North Sea Monkfish FIP * KC to find out what the Cod FIP is doing to address secondary species requirements   **A review and re-scoring of main primary and secondary species during the annual review found the following:**  Main Primary Species  **Whiting:** stockdropped below BMSY but remains above Blim. No change in score.  **Cod**: North Sea cod’s MSC certificate was suspended as the stock dropped below Blim. A strategy is in place, but the result is a reduced score on 2.1.1.  Score on 2.1.1 reduced to 60-79 (due to cod)  Score on 2.1.2 remains >80 (due to cod strategy being put in place)  *NB. This is the scoring for both UoAs as cod is a main species for trawl & seine.*  Main secondary species  **Nephrops** FIP (see latest action plan) shows only Farn Deeps and Devils Hole scoring SG60 – Farn Deeps has been subject of a strategy to address this, but nothing on Devil’s Hole to date.  **Monkfish** status unknown in Area IV, but TAC in place and Western Waters MAP considered a partial strategy, good status for Area VII.  Score on 2.2.1 remains 60-79 (due to Devil’s Hole FU)  Score on 2.2.2 remains 60-79 (due to Devil’s Hole FU)  *NB. This is the scoring for the Trawl UoA due to Nephrops fleet, but not the Seine UoA, which should score >80.* |  |
| **Action 4: Alternative measures for bycatch**  **Performance indicator**  **2.2.2 (e)**  **>80**  Requirement at SG80:  There is a **regular** review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of **unwanted** catch of main secondary species and they are implemented as appropriate. | **Review of Alternative Bycatch Reduction Measures**  D Parker & B Lart drafted a paper outlining the alternative measures that are being considered to reduce unwanted bycatch in the North Sea fisheries. | **4a.** Draft paper on alternative bycatch reduction measures | **Completed (although update/revisions agreed – see actions below)**  Paper drafted by members of the Steering Group and circulated to wider group.  To be incorporated into the Management Plan.  **Actions**   * CM to add gear matrix to the alternative measures paper * BL and CM to continue work on the alternative measures paper * BL to access Shetland’s discards data and incorporate into the alternative measures paper * BL to ask ICES for *LS* length distribution data tables for 2002-2018 * LH to send Osprey data to CM | Year 3:  Finalise review paper. |
| **4b** Seek response from fishery managers | **Behind target**  Mainly due to Brexit, and now Covid-19, the review is still to be shared with fishery managers for their consideration.  The UK as an independent coastal state is considering future fishery management from 2021 onwards and it is therefore timely to provide fishery managers with this paper. | Share with fishery managers and explore implementation of measures where necessary. |
| **Action 5: ETP**  **Overview**  ETP strategy  **Performance indicator**  2.3.1, 2.3.2, 2.3.3 ETP species outcome, management & information  **60-79**  Requirement at SG80: **2.3.1**  Where national and/or international requirements set limits for ETP species, the combined effects of the MSC UoAs on the population /stock are known and highly likely to be within these limits | **ETP Strategy**  WWF lead on revised list.  An ETP strategy should be developed that:   * identifies ETP species interacting with each UoA * Manages and minimizes impact by the fishery * Ensures sufficient information is collected to inform management. | **5a.** Yr1 strategy developed | **Completed**  Discussion within the SG identified that an ETP strategy had been developed for the SFSAG certified fisheries. This was shared with the group and it was agreed that this would be fit for purpose in this fishery. |  |
| **5b** yr2 data collection programme developed | **Completed**  Data collection is ongoing within the SFSAG. |  |
| **5c** Yr 3 Analysis of data collection and review of strategy | **Behind target (>80 expected at year 3)**  Assessment of UoA interaction with the latest ETP species list was undertaken by WWF. This identified need to consider Scottish Priority Marine Features in line with other assessments.  A further review was required with the introduction of the Osprey vessels in Yr 3. This showed that the Starry Ray was another ETP species with known interactions with UoA vessels – an existing condition (under Osprey’s plaice certificate) was collecting information on the extent and impact of this interaction. The programme would need alignment with the SFSAG vessel programme unless a separate UoA.  Propose additional measures where necessary (aligned with Nephrops FIP regarding North Sea ETP species, noting some on the Nephrops list may be West of Scotland only).  **Actions:**   * MSC to share ETP list with WD * WD to ground truth the ETP list with industry * KC to follow up with SFF and SFSAG regarding ETP observer data and Marine Scotland data | Year 3:  [Alignment with *Nephrops* PA ETP list] |
| **5d** Yr 4 Implement any necessary additional actions. | To be carried out Yr 4 |  |
| **Action 6: Habitats**  **Overview**  Spatial scale, intensity and impact of the fishery on habitats assessed and management measures developed where appropriate.  **Performance indicator**  **2.4.1, Habitat outcome 60-79**  **2.4.2, management 60-79**  **2.4.3, information 60-79 now rescored to >80** | **Habitat Assessment**  Cefas commissioned task  To provide a quantitative assessment of the scale of overlap, the level of impact and the rate of recovery.  In relation to commonly encountered habitats and VMEs.  Results will indicate if a habitat strategy is necessary. The outcomes are dependent on the beam trawl industry wanting to move forward. | **6a**. Habitat assessment | **Completed**  Cefas were commissioned to carry out a habitat assessment in 2018. Two indicators were estimated to quantify the impact of the FIP vessels on different types of North Sea habitats: overlap and recovery. It found that the impact of the vessels on commonly encountered habitats is low according to MSC standards. However, the fishing effort of the FIP fleet overlaps with > 20% (up to 60%) of sea pens, sponges and cup corals (VMEs), and sea-pen and burrowing megafauna communities (OSPAR threatened and declining habitats) in the North Sea. These habitats have low recoverability and based on MSC standards overlap should be lower than 20%.  A final report was provided in Jan 2019, which clarified a number of issues, but did not conclude whether a habitat strategy were necessary. It was also evident that the VME habitats reported to be over 20% overlap did not correspond to those identified in other MSC assessments ,such as the recent Joint Demersal Fisheries in the North Sea[[1]](#footnote-1). Specifically sponges and cup corals as only ‘deep sea sponge aggregations’ and ‘coral gardens’ are identified as VMEs in these assessments. |  |
| **6b**.Habitat strategy | **Behind schedule**  Dr G. Gaudian, a very experienced P2 MSC assessor was commissioned to provide clarity on the issues arising from the habitat assessment and advise on the need for a habitat strategy.  Reporting in Nov 2019, with follow up Q&A section in Feb 2020, Dr Gaudian stated that….  The Cefas report appears to use VME and VME indicator species interchangeably which may have led to confusion. A specimen of a possible VME indicator species in a trawl sample does not make a VME as defined above.  An official body, government research department etc, will decide what is considered a Vulnerable Marine Ecosystem, and designate the area as protected after much research and surveys.  The report concludes that it is the designation of MPAs and subsequent adherence to management measures associated with the MPAs that will be critical to the MSC assessment.  The report was presented to the SG meeting Feb 2020. The implications of this report still need to be discussed by the Steering Group and a decision on whether any additional measures are needed to ensure SG80 is met for habitat PIs.  LH informed the group that Osprey re-certification is due this April and any reports or data this group has should be used to support it, as assessors can only go on the data they are provided or can access.  **Actions:**   * Group to make a decision on data provision for Osprey re-certification in April * Secretariat to share latest habitat report with the Steering Group * Osprey and SFSAG to share list of current management measures in their UoA * Group to consider adding the Cod certification details to the FMP as a gap analysis | Added v3.2,  Revised to Yr4 |
|  | Rescoring of the habitat PIs, as far as possible, is provided below as part of the annual review. This is based on the two reports provided through the FIP and the results from recent MSC assessments of North Sea using v2.0 of the standard:  2.4.1 – **60-79**  Potential condition with overlap of FIP vessel activity and MPAs for Central Fladden, East of Gannet & Montrose Fields in relation to seapen & burrowing megafauna. Requires proof of MPA avoidance to score >80.  2.4.2 - **60-79**  AS per joint demersal assessment: “In summary, it is not possible…to confirm that each UoA is complying with protection measures afforded to VMEs by other MSC UoAs/non-MSC fisheries, where relevant”. As with 2.4.1, requires proof of active avoidance and compliance with all North Sea MPA measures to meet SG80  2.4.3 - **>80**  The information presented in the habitat reporting shows that what is available through VMS and logbooks for these vessels, and its comparison against existing habitat information, is sufficient to score >80. |  |
| **Action 7 :**  Fishery-specific management (Lemons)  **Performance indicator**  Requirement at SG80:  3.2.1, short & long term objectives are explicit within fishery specific management system  3.2.2, Decision making processes respond to serious and other important issues  3.2.4 The fishery specific management system is subject to regular internal and occasional external review. | CM (SG Chair) leading on  development of a Management Plan for North Sea Lemon Sole with support from SG members. | **7a Yr1-2** Review progress on North Sea mixed fishery plan | **Completed**  The North Sea Demersal Multi Annual Plan was introduced in 2018. Lemon sole is considered under the plan as a by-catch species.  “This Regulation also applies to by-catches caught in the North Sea …where ranges of FMSY and safeguards linked to biomass are established for those stocks under other Union legal acts establishing multiannual plans, those ranges and safeguards shall apply.”  Article 5 specifies the objectives under the CFP and MSY targets apply to by-catch species. These support the >80 scoring of 3.1.3 long term objectives, but are not considered sufficient to address the SG80 requirements for 3.2 Fishery Specific Management. |  |
| **7b** **Yr3-4** develop specific management plan if required | **On target**  In 2019 the SG chair with support from SG members began drafting a Lemon Sole Fisheries Management Plan. The MSC Fisheries Management Plan (FMP) template is being used as the basis for this document.  The primary aim of the document is to set out HCRs and other fishery specific management measures to be agreed by the SG and FIP vessel groups.  It will also identify the information sources, including those documents produced under the FIP to facilitate future assessment.  Actions:  **Actions for CM, BL & WD related to drafting and editing specific sections of the MP are set out in the minutes of Feb 2020.** |  |
| **7c Yr 4** Review of UK fisheries management post-transition period. | **To commence 2021** | Added v4.1 |
|  | Rescoring of the fishery specific management PIs, is not appropriate at this annual review as:  The Management Plan is not completed and so not adopted in a formal or informal capacity.  The future management of the fishery under the UK as an independent coastal state is still to be determined.  **The scoring in relation to the fishery operating under the CFP remains correct during the transition period to end of 2020.** |  |

1. <https://fisheries.msc.org/en/fisheries/joint-demersal-fisheries-in-the-north-sea-and-adjacent-waters/@@assessments> [↑](#footnote-ref-1)