**Overview**

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Fishery name:** UK North Sea, West of Scotland and Irish Sea Nephrops (*Nephrops norvegicus*) | | | | | | **Start date:** 01 May 2019 | |
| **Fishery location:**  **North Sea** Functional Units (FUs): 5 Botney Gut - Silver Pit, 6 Farn Deeps, 7 Fladen Ground, 8 Firth of Forth, 9 Moray Firth, 10 Noup, 34 Devil's Hole.  **West of Scotland** FUs: 11 North Minch, 12 South Minch, 13 Firth of Clyde + Sound of Jura.  **Irish Sea** FUs: 14 Irish Sea East, 15 Irish Sea West. | | | **Fishing methods:**  Demersal trawl  Creel  **UoA vessels**: all UK vessels | | | **Annual reviews:**  End Year 1: April 2020 Completed 14 April 2020  End Year 2: April 2021 Completed 21 May 2020 (this version)  End Year 3: April 2022  End Year 4: April 2023  End Year 5: April 2024 | |
| **Project leaders:** Project UK Fisheries Improvements – Stage 2 | | | | | | **Improvements recommended by:** | |
| **Overview of the Action Plan:**  This Action Plan is undertaken as part of Project UK Round 2 and is applicable to UK nephrops demersal trawl and creel fisheries in the North Sea, West of Scotland and Irish Sea, across specified nephrops Functional Units (FUs). It is informed by an MSC pre-assessment (completed in May 2019), quarterly steering group meetings and end of Year 1 and Year 2 review processes. Actions and milestones have been completed for the MSC performance indicators (PIs) that fail to reach Scoring Guideposts (SG) 60 and/or 80. The Action Plan highlights an ambitious set of actions designed to raise the scores over a defined period to a point at which the fishery could enter MSC assessment. The focus of the action plan is outlined below for each MSC Principle. | | | | | | | |
| **Principle 1 (target stock):** | | | **Principle 2 (ecosystem):** | | | | **Principle 3 (management):** |
| * **management at Functional Unit (FU) level**, that is responsive to the state of each FU stock, * development of biomass **limit reference points** for all FUs, * development of MSY proxy reference points for biomass and harvest rate for specific FUs, * development of **harvest control rules** for each FU that utilises a technical measures toolbox. | | | * understanding the catch composition, including quantity and species of bait used in the creel UoA, * interactions with ETP species & additional management requirements in an **ETP Strategy**. * assessment of commonly encountered and VME habitats impacts, * development of a **Habitat Management Plan,** * introduction of vessel monitoring systems on all vessels to accurately / reliably record the footprint of the fishery. * undertake an ecosystem Scale, Intensity, Consequence Analysis (SICA) | | | | * focused on requirements for monitoring and control, specifically risks of non-compliance associated with the nephrops fishery in relation to the landing obligation. * review of Principle 3 after UK-EU transition period. * development of Fisheries Management Plan, linked to P1 Harvest Strategy. |
| Colour code in tables below: | Principle 1 | Principle 2 | | Principle 3 |  | | |

**Annual Review (end of year 2)**

This section, prepared by Fiona Nimmo of Poseidon, summarises the annual review process at the end of year 2 of a five year Fisheries Improvement Project (FIP) for the UK North Sea, West of Scotland and Irish Sea nephrops demersal trawl and creel fisheries. It reviews the progress made and the ongoing focus of actions.

**Main Findings**

The FIP for the UK nephrops fisheries has made progress in year 2; and there has been an increase in score across all trawl UoAs for one PI (2.2.2) **from 60-79** **to ≥ 80** within the Principle 2 component (for 2.2.2 secondary species management). There has been an increase in score for North Sea trawl UoAs for cod management (2.1.2 primary species management) and for creel secondary species outcome status (2.2.1), both **from 60-79** **to ≥ 80.** At the end of year 2, three PIs fail to reach SG60 and 15 are within the 60-79 category.

The Covid-19 pandemic has affected the rate of progress for some of the actions and milestones have been amended. Brexit and the Trade & Cooperation Agreement (TCA) has impacted some scores. The UK is now an independent coastal state, and has established the UK Fisheries Act 2020. To assess the implications of these changes a general review of P3 scoring across Project UK FIPs was undertaken, resulting in the reduction of scores for four P3 PIs **from ≥ 80 to 60-79**. For this reason, the BMT process tracker shows a decline in the actual overall score, compared to the Yr2 expected score.

The establishment of Nephrops Management Groups for the North Sea, West of Scotland and Irish Sea has progressed through the initial identification of members for each group. Work is also ongoing for documenting current Functional Unit (FU) specific management measures within the Fisheries Management Plan (FMP).

Substantial work has progressed for Principle 2, with a comprehensive review and assessment of alternative measures to minimise unwanted catch (increasing 2.2.2 PI score). Catch data that distinguish gear to TR1 and TR2 level, as well as for creel, has been assessed to more accurately profile the species to be considered under P2.

The SFSAG implemented management plan for cod in the North Sea has been recognised as a precautionary plan by ICES and considered to meet SG80 for North Sea cod management (increasing 2.1.2 PI score). Stock status has been monitored for West of Scotland and Irish Sea cod and whiting, with no improvements for these stocks which remain at <60 for outcome status.

Other progress for P2 actions included a PSA undertaken for secondary species; an ETP Masters project to assess the risk of interaction with ETP species; the development of an ETP protocol in excel format; and further work identified to improve the understanding of demersal trawl gear interactions with commonly encountered habitats and VMEs.

**Map

Description automatically generatedRecommended actions in year 3**

By the end of year 3, all PIs are expected to meet 60-79 or above. This requires 3 PIs to move from <60 to 60-79, specifically for:

Principle 1 - 1.2.1: Harvest strategy: to meet SG60 it is required that the harvest strategy can be expected to achieve stock management objectives. Action 2 is focused on addressing the mismatch of scale between current management (i.e. TACs set at ICES Division level) and stock assessment areas (i.e. Functional Units). This will be achieved through the establishment of Management Working Groups to discuss and agree technical measures at FU level (that would be implemented if trigger points are reached). It is important that this process ensures an inclusive approach that can be agreed by the appropriate stakeholders across these UoAs.

Principle 2 - 2.3.1: ETP species outcome status: to meet SG60 it needs to be established that the known direct effects of the UoA are likely to not hinder recovery of ETP species. The level of interaction and management (including MPAs and release practices) should be documented for the ETP species identified by the ETP Masters project as being of high or medium risk. Further work to progress the ETP protocol (testing the excel log and/or the Clean Catch UK App) and consultation with the industry will further inform the outcome status assessment.

Principle 2 - 2.4.1: Habitats outcome status: to meet SG60 it needs to be established that the UoA is unlikely to reduce structure and function of the VME habitats to a point where there would be serious or irreversible harm. A post-doctoral study is in the process of being commissioned to inform this assessment.

With focus on Principle 2, these components should undergo further review and harmonisation with the ongoing Project UK Round 1 lemon sole and plaice FIP and the SFSAG demersal fisheries re-assessment.

Other PIs expected to improve in score during Year 3 (to move from 60-79 up to >80) include:

Principle 1 - 1.2.2 Harvest control rules and tools: establishing well defined control rules with respect to point of recruitment impairment and MSY. This milestone was scheduled for Year 3 to build and strengthen the commitments already set out within the Multi-Annual Management Plans.

Principle 3 - 3.2.3 Compliance and enforcement: focused on compliance with landing obligation and enforcement within MPAs.

Principle 3 – other PIs will benefit from further clarification on the functioning of UK fisheries management with respect to the Multi-Annual Management Plans and TCA processes.

**Table 1: Action Plan**

| **Standard requirement** | **Lead & partners** | **Timescale / milestones** | | **Progress** | **Revised milestone** |
| --- | --- | --- | --- | --- | --- |
| **Action 1: Stock status**  **Overview:** [FU 6 & FU 34]  Reduce harvest rates in FUs 6 and 34 to levels below the Fmsy proxy to ensure that stock biomass is rebuilt to a level consistent with MSY.  **Performance indicator**   * + 1. Stock status **60-79**   Requirement at SG80:  (a) It is highly likely that the stock is above the PRI [FU34]  (b) The stock is at or fluctuating around a level consistent with MSY. [FU 6 & FU 34] | Action lead: Steering Group (SG)  Resources: Harvest Strategy Development Project | **1a.** Yr. 2-5 – Ensure that harvest rates in FUs 6 and 34 are reduced to below the Fmsy proxy e.g. by ensuring landings are no more than the catches advised by ICES for these two UoAs. | **Behind target for FU6 and on target for FU 34**  A summary is provided of nephrops stock status as of April 2021 based on information from the latest ICES advice. Note that this action milestone relates to FUs 6 and 34 that score between 60-79, while all other stocks are ≥80. The harvest rate for FU6 was double the Fmsy stipulated in the North Sea MAP.  **Transferable learning** from other MSC nephrops fishery full assessment reports are summarised as follows:  Withdrawn: Scottish Fisheries Sustainable Accreditation Group’s (SFSAG) North Sea nephrops trawl fishery (PCDR client review, MEP, 2012):   * Five FUs were assessed (6 Farn Deeps, 7: Fladen Ground, 8: Firth of Forth, 9: Moray Firth, 10 Noup FUs); * For FUs 6, 8, 9 & 10, the lack of an adaptive management structure at FU level caused PI to fail. * For FU 7, it passed P1 with 1 condition: * >60% of the North Sea TAC is taken from the Fladen Ground, so that the TAC is more responsive to the status of this stock than to the others; * The stock status is good; * It is difficult to transfer effort to the Fladen Ground (because it is further offshore than the other FUs) * Condition: management system more responsive to stock status   Certified: Joint Demersal North Sea fishery:   * Three FUs were assessed: 7 Fladen Ground, 32 Norway Deep and 3a Kattegat and Skagerrak. * FU32 failed with an average score of less than SG80 for Principle 1, * Area 3a had one condition in Principle 1 * FU7 passed MSC assessment with no conditions as it was understood to have a coherent harvest strategy: harvest rates are managed through the North Sea total allowable catch (TAC), it has minimum conservation reference sizes (MCRS), technical measures for TR2 gear. TAC is adjusted annually and MSY Btrigger is used as the limit reference point. The stock is in good condition and only a massive shift in effort, +70% of TAC, could cause over exploitation. | | Revised to Yr 2-5 to ensure continual monitoring throughout FIP. |
|  | | | | |
| Action lead: Steering Group (SG) | **1b.** Yr2 - Maintain harvest ratio below 7.5% in FU34 and below 8.12% in FU6. | | **Behind target for FU6 and on target for FU 34**  ICES stock assessment and advice published in Nov 2020 show the following harvest ratios (HR) for FU34 and FU6:   * FU 34 HR2019 = 4.9% * FU 6 HR2019 = 16.1%   This milestone has been met for FU34, but has not been met for FU 6. There are no score changes for either FU. |  |
| **1c.** Yr3 - Continue to maintain harvest ratio below 7.5% in FU34 and below 8.12% in FU6, and demonstrate that stock is at or fluctuating around a level consistent with MSY in FU34 and that stock abundance remains above MSYBtrigger in FU6. | | This action has not yet commenced. |  |
| **Action 2: Harvest Strategy**  **Overview:** [all FUs]  The harvest strategy is at a stock level and can be responsive to changes in the state of that stock.  **Performance indicator**  1.2.1 Harvest strategy **<60**  Requirement at SG80:  (a) **SG60:** The harvest strategy is expected to achieve stock management objectives  **SG 80:** 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.  (b) The harvest strategy may not be fully tested but there is evidence that it is achieving its objectives.  (f) Regular review of alternative measures of minimising mortality of unwanted catch. | Action lead: SWFPA  Resources: Harvest Strategy Development Project | **2a.** Yr1 - Assess the options and scope of the current harvest strategy, in accordance with the North Sea and North West Waters Multi-Annual Plans (MAPs). Assess its ability to continue to deliver management objectives that achieve a stock at or fluctuating around MSY. Investigate rebuilding plans and strategy. | | **Complete**  The Harvest Strategy Development (HSD) project highlighted three key issues identified at pre-assessment: B limit reference points need to be defined; annual TACs are set at ICES division level, not by FU; and lack of evidence that requirements on discarding have been implemented.  The report reiterated that the options of TAC by FU and Days at Sea have been ruled out based on the understanding that these are unworkable for industry.  Overall the report recommended that technical measures are developed; these can offer flexibility to fishermen and appear to be the only way to move forward at this time; however they can be complex and have indirect consequences as well as risk decreasing fishing efficiency.  Examples of technical measures include minimum landing sizes, regulation of engine power, gear design, and spatial and/or temporal fishing restrictions; and the HSD project includes a ‘toolbox’ of suggested measures.    It should be for local management groups to decide which measure(s) are most appropriate for their FUs.  The HSD project outlines options for improved data to better inform management decision, specifically CPUE, taking a live-time approach i.e. when management groups are meeting, a CPUE report could be run for each FU to give up-to-date details. This would better support management via technical measures (compared to stock abundance data which supports management via TAC).  The title of the HSD report had been updated to clarify it is a ‘non-TAC FU management plan’, and the table on p10 has been updated to include ‘ticks and crosses’ to illustrate the recommendations clearly.  Moving forward, management groups need to be established to discuss and agree technical measures (that would be implemented if trigger points are reached). The Steering Group agreed that a regional approach to management is required due to the large area covered by the FIP and the differing challenges faced by each Functional Unit. This Management Focus Group will support the development of regional management.  **Actions:**   * Secretariat to consult with Irish FIP to understand their FU management plans for the overlapping region. |  |
| Action lead: MSS  Partners: Cefas, AFBI | **2b.** Yr 1 - Investigate whether there is any discarding of nephrops above the MCRS. | | **Complete**  MSS provided Nephrops discard rates (by weight) above and below MCRS in 2018 for North Sea (FUs 7, 8, 9) and WoS (FUs 11, 12, 13). Note: higher than average discard rate of neprhops >MCRS in FU 8 (Firth of Forth)  The latest ICES report contains details on MCRS for the Irish Sea. The 2019 ICES assessment showed landings profiles for Irish Sea Functional Units and indicated that there are discards of Nephrops above MCRS. The next report produced by the ICES Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK) will provide a size range of discards for FU6.  The fishery in FU5 is self-sampled by Dutch industry, who have their own minimum landing size with estimates of discarding around 60-70%. |  |
| Action lead: TBC | **2c.** Yr 2-3 – Establish Management Working Groups for UK regions each covering one or more FU. | | **On target**  Moving forward, management groups need to be established to discuss and agree technical measures (that would be implemented if trigger points are reached). The Steering Group agreed that a regional approach to management is required due to the large area covered by the FIP and the differing challenges faced by each Functional Unit. This Management Focus Group will support the development of regional management.  The group discussed possible approaches to regional management, including:   * the spatial boundaries of the region; * the relevant stakeholders; * who should lead the work in each region; * challenges that may come up; and * realistic timelines.   The group agree that it is important to involve stakeholders outside the steering group within the management groups to ensure input to the development of and buy in to management options. This process should be transparent to demonstrate where some stakeholders do not wish to participate, but remain updated of progress.  The SG agree that following an ‘ICES area’ approach for regionalisation of management groups is appropriate and practical.  It is suggested that the first step be to hold a centralised workshop that assembles all regional working groups together and show cases potential management measures and how these have been applied globally. This means each group will be starting with the same information.  The establishment of Regional Management Groups has commenced with a list of stakeholders drawn up for each group. This list is being discussed / agreed with the Steering Group.  **Actions:**   * JP to share a summary of proposed work with the focus group. * DW to continue to work with Seafish on planning for a Nephrops management event, with support from the Secretariat to consider how to fund documentation of current management measures in each functional unit, and how to fund the regional workshops. | Milestone added in v1.8  Timescale updated v3.1 to Yr2-3 |
| Action lead: 2c  2d Whitby Seafoods  Action lead 2d: Seafish | **2d.** Yr2-4 – Develop and formalise harvest strategy. Present rebuilding plans and demonstrate that it is highly unlikely that the Fmsy for an individual FU will be exceeded. | | **On target**  The approach of the Project UK Round 1 FIPs is noted, specifically the development of Fishery Management Plans and presence of Defra on the SG to ensure government is aware of discussions and ensure alignment with national fisheries strategies.  Noted that other industry groups, such as the Scallop Industry Consultation Group (SICG) have Defra involved. The aim is to develop strong co-management, with industry indicating the management options they would like, and government signing it off or amending where appropriate. The SG agree that an advisory group concept would provide direction to the group and agree to the importance of having fisheries administrations involved to ensure both parties are fully updated.  It is noted that Mike Park (MP) chaired the North Sea Advisory Council Nephrops group that developed the Nephrops Long Term Management Plan over seven years and set out what Nephrops management could look like at a Functional Unit level. Their approach was to ask fishermen that if they had to restrict fishing in that area and which measures they would implement. MP believed that technical measures were agreed for each area, but it would ultimately be up to the fleet to implement the measures.  It is noted that the North Sea and Western Waters MAPs state that when nephrops stock status falls below specified levels, management measures must be implemented. However, the MAPs do not specify the which management measures will be implemented, and the MSC Standard requires management actions and reference points to be specifically agreed and documented.  The SG agree that engagement in this FIP from Defra, Daera, and Marine Scotland Policy officials is crucial to the success of adopting additional management measures in the UK Nephrops fishery; increased legislative involvement will ensure that plans are implementable and enforceable.  Seafish’s involvement with the Shellfish Industry Advisory Group (SIAG) is highlighted as a good opportunity for alignment with this action e.g. to facilitate hosting an event. Seafish have stipulated that if the FIP requires Seafish’s input, then a proposal should be submitted.  **Actions:**   * DW to lead on documenting current management measures in each Functional Unit | Updated timeline in v1.8 |
| **2d.** Yr 2 - Consider options for alternative measures to minimise mortality of unwanted catch. | | **Complete**  Seafish have undertaken a thorough review of alternative measures, including both an excel database of studies and comprehensive written report. This process included significant input from the steering group on recent /current trials and studies, as well as technical measures & national legislation (for example, regulations on square mesh panels)**.** This process aligned with the work undertaken by the lemon sole and plaice FIP. |  |
| **2e.** Yr3 – Continue to monitor effectiveness of harvest strategy. Agree and list rebuilding strategies. | | This action has not yet commenced. |  |
| **2f.** Yr5 - Carry out new review of alternative measures to minimise mortality of unwanted catch. | | This action has not yet commenced. | Timeline changed in v3.1 |
| **Action 3: HCR**  **Overview:** [all FUs]  Develop limit reference point (Blim) and define explicitly what action should be taken if stock abundance drops significantly below MSYBtrigger and towards Blim, and if stock abundance drops below Blim. Ensure that catches do not exceed the levels advised by ICES.  **Performance indicator**  1.2.2 Harvest control rules and tools **60-79**  Requirement at SG80:  (a) Well-defined HCRs are in place, (wrt PRI and MSY).  (b) HCRs are likely to be robust to the main uncertainties  (c) available evidence indicates that tools in use are effective. | Action lead: Cefas  Action partners: MSS  Resources: Harvest Strategy Development Project | **3a.** Yr1-3 – Consider options for defining Blim and how exploitation rates should vary dependent on the estimate of stock status in relation to stock abundance reference points. Ensure that catches do not exceed the levels advised by ICES. | | **On target**  The potential of using a buffer score (‘Bbuff’) to build in a precautionary approach before Blim is reached was discussed. This would help avoid issues where a data delay could have negative impacts on the stock.  The ICES workshop on methodologies for nephrops reference points (WKNephrops) was held in Nov 2019 to evaluate reference point estimation methods for stocks with UWTV surveys. The workshop had the following objectives (ICES, 2019[[1]](#footnote-1)):   * Review the methodology and performance of the current approaches to estimating reference points for Category 1 Nephrops stocks. * Based on a) develop a standard method and apply this method to estimate reference points (MSY, ranges, precautionary and limit) for fishing pressure and stock size for all Nephrops stocks which have sufficient data. * Evaluate the utility of other modelling frameworks to assess and provide reference points for Nephrops stocks (e.g. length based models, VPA type models and production models).   Note that the workshop objectives have been removed from ICES website and the final WKNepRef 2019 report appears to not be available.  **Biomass reference points**  It was agreed at the SG meeting on 19 October 2020, that based on transferrable learnings from the Joint Demersal assessment, it is appropriate to consider MSYBtrigger as a limit reference point, as it represents the lowest abundance measured in the timeseries of UWTV surveys undertaken for (most) FU stocks. Therefore it is considered appropriate that MSYBtrigger is a proxy for Blim.  The action therefore changes focus to defining BMSY or an appropriate proxy for BMSY.  Extract from MSC interpretation log on BMSY and ICES assessed stocks[[2]](#footnote-2):  *MSC recommends that to achieve an assumed status of BMSY, F should have been at or below FMSY for at least 1 Generation Time (GT) from a starting point close to Bpa or Btrigger, and 2 generation times from a starting point close to Blim (Carruthers and Agnew 2016[[3]](#footnote-3)*  *An 80 score may also be met where stock size is very substantially higher than Bpa, for instance greater than 2 x Bpa (Btrigger) (Froese et al, 2014[[4]](#footnote-4)), irrespective of the above F proxies.*  **Actions:**   * Secretariat to facilitate meeting to discuss Nephrops reference points * Steering Group to consider asking ICES to calculate Bbuff levels | Timeline changed in v3.1 |
| Action lead: TBC | **3b.** Yr2-4 – Consult on options for defining Blim and for formalising more explicit HCRs for when stock abundance drops below both MSYBtrigger and Blim. Ensure that catches do not exceed the levels advised by ICES. | | This action has not yet commenced.  See 1a | Timeline changed to Yr2-4 in v3.1 |
| **3c.** Yr3-4 – Define Blim for stocks and implement more explicit HCRs for when stock abundance drops below both MSYBtrigger and Blim. Ensure that catches do not exceed the levels advised by ICES. | | This action has not yet commenced. | Timeline changed to Yr3-4 in v3.1 |
| **Action 4: Information**  **Overview:** [FU 5, 10 & 34]  Development of regular estimate of stock abundance through TV burrow count surveys in FUs 5, 10 and 34.  **Performance indicator**  1.2.3 Information and monitoring **60-79**  Requirement at SG80:  (b) Stock abundance and UoA removals are regularly monitored at a level of accuracy and coverage consistent with the harvest control rule… | Action lead: MSS  Partners: Cefas | **4a.** Yr1 – Determine timescale for implementing regular TV surveys in all FUs. | | **Complete**  All Scottish FUs are planned to be surveyed on an annual basis. Data-limited FUs (10 & 34) are dropped if there are time-constrains or any issues during the surveys (for example weather, problems with the ship or equipment, any staff issues). In 2019 MSS successfully surveyed all FUs (including FU 10 and 34).  It is understood that FU10 and 34 are surveyed as often as possible but Covid-19 was impacting AFBI’s ability to do so this year.  The use of catch per unit effort (CPUE) is discussed. Paul Medley (P1 adviser) recommends use of CPUE as an additional means to monitor FUs. This could be more important for FUs with irregular UWTV surveys. Cefas cautioned against using a CPUE as a proxy indicator for Nephrops as catch rate data is hugely variable and depends on factors such as sunlight, oxygen, absence/presence of predators and spawning cycles. Using CPUE as a proxy under such circumstances is likely to produce inaccurate estimates of Nephrops abundance, which could have significant consequences for managing the stocks.  It is noted that landings outside designated Functional Units have increased recently:   * Landings outside FUs in North Sea were 724 tonnes + 567 tonnes discards, ICES advice was 376 tonnes. * Landings outside FUs in West of Scotland were 173 tonnes, ICES advice was 261 tonnes. |  |
| **4b.** Yr2 – As a priority, instigate regular TV surveys in FU5 (last survey in 2012). | | **Complete**  Surveying FU5 is undertaken by Cefas. FU5 was not surveyed in 2019 and was last surveyed in 2012. It is unknown why this FU appears of lower importance for regular survey, it could be based on catch levels or that it is shared between UK and other EEZ.  Cefas explained that there is no funding available to survey FU5 on a regular basis and this is unlikely to change.  This action is outside FIP control and cannot be taken further based on funding requirements. |  |
| **4c.** Yr3 - Instigate regular TV surveys in FU10 (last survey in 2014) and in FU34 (last survey in 2017). | | This action has not yet commenced. |  |
| **Action 5: Assessment**  **Overview:** [FU 5, 10 & 34]  Development of stock abundance and harvest ratio reference points for FUs 5, 10 and 34.  **Performance indicator**  1.2.4 Assessment of stock status **60-79**  Requirement at SG80:  (b) The assessment estimates stock status relative to reference points that are appropriate to the stock and can be estimated. | Action lead: MSS and Cefas | **5a**. Yr1-3 – Review data requirements for developing harvest ratio reference points for FUs 5, 10 and 34. Use 7.5% harvest ratio as reference point until better estimate is available. | | **On target**  The ICES WKNephrops held a workshop in Nov 2019, which included the following objective:   * For Nephrops stocks which are more data-limited propose a consistent methodology to determine stock status and provide catch advice taking into account available data and knowledge from other areas.   A pre-assessment report that was conducted on Nephrops stock status a few years previously was mentioned. All FUs were to be assessed but the process stopped due to concerns that a market disadvantage could be created between the differing FUs. While this does not contribute to any specific FIP actions, the pre-assessment may have information of relevance to Project UK.  Transferrable learning from SFSAG North Sea NEprhops trawl fishery are provided in milestone 1a.  **Actions:**   * Secretariat to obtain ICES WKNEPREF report when available. * Secretariat to follow up with Cefas and MS for access to CPUE data. | Timeline updated in V3.1 |
| **5b.** Yr2-4 – Evaluate whether there are sufficient data to develop harvest ratio reference points. | | This action has not yet commenced. | Timeline updated in V3.1 |
| **5c.** Yr3-4 – If sufficient data are available, develop harvest ratio reference point for FUs 5, 10 and 34. | | This action has not yet commenced. | Timeline updated in V3.1 |
| **5d.** Yr5 – Determine stock abundance reference point for FUs 5, 10 and 34 based upon time series of TV abundance estimates. | | This action has not yet commenced. | Timeline updated in V3.1 |
| **Action 6: Primary spp**  **Overview:** Information on the nature and scale of effect of this fishery on primary species stocks needs to be assessed.  Based on this, appropriate management measures need to be developed.  **Performance indicator:**  Trawl  **2.1.1:**  North Sea FUs (5-10, 34): **60-79**  WoS FUs (11-13): **<60**  Irish Sea FUs (14-15): **<60**  **2.1.2:**  North Sea FUs (5-10, 34): **≥ 80 (**moved from 60-79 to ≥ 80 in v3.1)  WoS FUs (11-13): **<60**  Irish Sea FUs (14-15): **60-79**  Requirement at SG80:  2.1.1 (a) Outcome status: Main primary species are highly likely to be above biologically based limits, or if below there is evidence of recover or a demonstrably effective partial strategy.  2.1.2 (a) Management: A partial strategy is in place for the UoA  (b) objective basis for confidence it will work  (e) Regular review of effectiveness and practicality of alternative measures to minimise mortality of unwanted catch | Action lead: MSS  Partner: Poseidon | **6a.** Yr. 1 - Collate and analyse catch composition for each FU with regular review, to confirm categorisation of main & minor for each FU.  MSS to liaise with AFBI and Cefas regarding data. | | **Complete**  Cefas have provided total catch data, including landings (based on iFISH database) and discards (based on observer coverage) at Functional Unit level for the following gear: demersal trawl TR2 (70-99mm); demersal trawl TR 1 (≥100mm); and pots & creels.  This dataset has allowed accurate profiling of main and minor primary and secondary species.  The pot & creel data remains complicated in that landings are recorded as generic ‘pot’ gear, rather than specifying the target species (i.e. nephrops, whelk, crab or lobster). However, the Cefas data is at FU level, which does provide some further context. Nevertheless, lobster and crab species remain significant within the catch data.  The Steering Group note that certain FUs have large creel components that interact with other species including cod.  More information on nephrops targeted creel catch composition may be available if iFISH data can be analysed at trip level. |  |
| Action lead: WoSPO, CIFA | **6b.** Yr. 1 – Establish bait species used within creel fishery and determine outcome status. | | **Complete**  Most commonly cited bait used by the creel sector targeting nephrops is herring – this is purchased as frozen blocks.  Other bait used is unwanted cuttings (head, fins, tails, carcasses) of gurnard and plaice, which have been landed and recorded via Registration of Buyers and Sellers (i.e. are included within iFISH database and subject to management for these species e.g. quota, MCRS etc).  Conclusion: bait species are herring (main), gurnard (minor) and plaice (minor). |  |
| Action lead: SG  Partner: Poseidon | **6c.** Yr. 2 and annually thereafter - Review status of whiting and cod in 4, 6a and 7a. (annual review) | | **On target**  It is agreed by the Steering Group that both TR1 and TR2 are included in the assessment for nephrops trawl.  (see updates below)  **Action:**   * SB to share more information on whiting bycatch in the Nephrops fishery with the group. |  |
| **Whiting stock status update**   * Spawning biomass very low. * Majority of whiting is caught in nephrops trawl and is below MCRS. * High discards and low TAC, could be choke species   **West of Scotland (6a) In June 2020,**     * ICES 2018 advice showed SSB is increasing, but remains below Blim. F reducing & well below FMSY. But this stock recently moved from an ICES category 1 species (full analytical assessment with reference points) to a category 5 species (assessments based on landings information). There are no reference points for whiting in West of Scotland so this stock would need Risk Based Framework (RBF) analysis. Although in June 2020 advice ICES state that “the stock size is considered to be below possible reference points” Suggest stock biomass is very low, with no signs of rebuilding (<60) * Whiting in West of Scotland: the Steering Group considered this an inaccurate representation of the information available as the West of Scotland whiting stock is not data limited, but is being hindered by assessment methods available to fisheries scientists. More time is needed for ICES to assess the stock as a category 3, and in due course, a category 1 in the near future.   **Irish Sea (7a) June 2019:**   * SSB extremely low, remains well below Blim. F reducing, but above Flim. (<60)     **North Sea (4) Jan 2021:**     * SSB slightly above MSY Btrigger and well above Blim. F slightly above Fmsy, and well below Fpa and Flim. (80)   **Cod stock status update**  **West of Scotland (6a) June 2020:**   * June advice provided details on a benchmarking exercise that resulted in revised estimates for SSB, recruitment and mortality. This had a minor impact on the status of the stock, with F above flim and SSB declining further. SSB has been below Blim since 1993. F has been above Flim since 1982.      * ICES advice is for zero catch. TAC is set at 321 tonnes exclusively for by-catch. UK: 193 tonnes, Union: 128 tonnes * The 2020 ICES assessment found that management was having no effect on biomass. As juvenile cod form aggregations, real time closures are recommended as a management option. The ICES report also raised concerns over misreporting catch from other ICES areas. (<60).   **North Sea (4) June 2020:**   * The stock is currently below Blim and the fishing pressure above Flim.      * The SFSAG cod North Sea MSC fishery was suspended in Sep 2019 during an expedited audit due to stock status and stock rebuilding failing to reach SG60.   The change in status is due to a downscale of SSB and upward revision of F in the 2019 stock assessment (2019). The stock is below PRI, and while there is a strategy in the form of a TAC, there is not evidence of recovery, nor has the strategy been shown to be demonstrably effective (SSB remains in downward trend). SG80 is therefore not met for outcome status.  TAC set via trilateral arrangement between EU, Norway and UK (see [here](https://ec.europa.eu/commission/presscorner/detail/en/IP_21_1206))  TAC set for 2021 at 15,911 tonnes (which is a 10% reduction on 2020), ICES advised 14,755 tonnes. Modelling shows catch of 15,911 tonnes will not hinder recover (it would result in 43% growth in SSB) (ICES, 2020). The TAC is therefore expected to ensure that the UoA does not hinder recovery of the North Sea cod stock and therefore SG60 is met for 2.1.1 and the score remains 60-79  In terms of management, a corrective action plan was instigated in Jan 2020 (which follows a FIP process) via a cod management paper produced by SFSAG that ICES has recognised as a precautionary management plan. Spatial restrictions have also been applied to all but pelagic gear.  There are voluntary closures for cod in North Sea fisheries, which have been supported by Fisheries Innovations Scotland (FIS). The voluntary closure uses a move on system when a vessels encounters juvenile cod. The management PI (2.1.2) score therefore increases from 60-79 to **80**.   * For the North Sea cod stock, the aim is to have SSB above Btrig for the first time since the 1980s and that the North Sea cod benchmarking will be in 2021.   **Irish Sea (7a) Nov 2020:**   * Biomass index dropped further and remains at lowest value in time series. Harvest rate increased in 2018 (score changes from 60-79 to <60). (reference points previously defined for this stock are based on an assessment that is no longer considered appropriate.) * Advice is for 93 tonnes. The advised catch for 2021 is lower than the 2020 advice because of the decrease in the index ratio. * TAC is set at 65 tonnes, exclusively for by-catch. UK: 19 tonnes and Union 46 tonnes. No modelling to predict outcome on SSB. | | | |
| **6d.** Yr. 2-3 - Review implementation of landing obligation within nephrops trawl fisheries and with respect to above main primary species stocks. | | **On target**  For both the North Sea and North West Waters, a de minimis exemption to allow vessels to discard a limited amount of Nephrops below MCRS has been agreed by Member States and the Commission (Marine Scotland, 2019[[5]](#footnote-5)). In both the North Sea and North West Waters, Member States and the Commission have also agreed a high survivability exemption for nephrops caught with pots, traps and creels which will allow those nephrops to be returned to the sea as they are highly likely to survive the capture process.  For all primary species subject to quota and caught by nephrops trawl, unless there is a derogation, these species count towards the LO. Fish caught in nephrops creels can be returned to sea, based on high survivability.  There remains a need to fully understand any issues arising from the implementation of the landing obligation specifically from the perspective of UK fisheries administrations. | Changed timeline to Yr2-3 in V3.1 |
| **6e.** Yr. 2 and annually thereafter - Review management of whiting in ICES Divisions 6a (West of Scotland) and 7a (Irish Sea) and cod in 6a (annual review). E.g., including comparison of TAC levels with ICES assessment catch scenarios to determine whether catch rates are hindering recovery. | | **Complete**  See 6c. |  |
| Action lead: Seafish | **6f.** Yr. 2 – Review effectiveness and practicality of current and alternative measures to minimize mortality of unwanted catch, including undersize fish. | | **Complete**  See 2d. |  |
| Action lead: SG | **6g.** Yr. 2 - Establish process for regular review of alternative measures and the associated effectiveness and practicality of such measures. | | **Complete**  It is agreed that the Steering Group will table an annual agenda item to review alternative measures and practicality of implementation. |  |
| Action lead: TBC | **6h.** Yr. 3-4 - Implement alternative measures where they are found to be more appropriate. | | This action has not yet commenced. |  |
| **Action 7: Secondary species**  **Overview:** Obtain accurate profile of catch to determine main and minor secondary species and inform management needs.  **Performance indicator:**  Creel: **2.2.1: ≥ 80 (**moved from 60-79 to ≥ 80 in v3.1)  Trawl **2.2.2: ≥ 80 (**moved from 60-79 to ≥ 80 in v3.1)  Creel: **2.2.2: 60-79**  Requirement at SG80:  2.2.1. Outcome status: Main secondary species are highly likely to be above biologically based limits.  2.2.2. Management: A partial strategy is in place for main secondary species  Regular review of alternative measures to minimise mortality of unwanted catch. | Action lead: MS Policy  Partner: Poseidon  Stakeholder: SCFF | **7a.** Yr. 1-2 – Accurately profile catch composition of creel nephrops fishery. For example, review catch data to determine if catch composition specific to nephrops creel can be determined (i.e. separate from crab & lobster creels and whelk pots). Based on this data review categorisation of main & minor for each FU. | | **Complete**  As per update provided in action 6a. | Updated to Yr1-2 due to obtaining catch data |
| **7b.** Yr. 2 and annually thereafter - Review status of main secondary species. | | **Complete**  A PSA has been completed for creel and demersal trawl UoAs. |  |
| **7c.** Yr. 3 - Review management of main secondary species ensuring it is appropriate to the stock status and species type. | | This action has not yet commenced. | Timeline updated in V3.1 |
| **7d.** Yr. 2 - Review effectiveness and practicality of current and alternative measures to minimize mortality of unwanted catch, including undersize fish and shellfish. | | **Complete**  See 2d. |  |
| **7e.** Yr. 2 - Establish process for regular review of alternative measures and the associated effectiveness and practicality of such measures. | | **Complete**  See 6g. |  |
| **7f.** Yr. 3-4 - Implement alternative measures where they are found to be more appropriate. | | This action has not yet commenced. |  |
| **Action 8: ETP species**  **Overview:** Overlap of UoA on ETP species and associated risk, as well as appropriate management.  **Performance indicator:**  Trawl **2.3.1: <60**  Creel **2.3.1: 60-79**  Trawl & Creel  **2.3.2: 60-79**  **2.3.3: 60-79**  Requirement at SG80:  2.3.1. Outcome status: Combined effects of MSC UoAs on ETP species are highly likely to be within set national / international limits. Known direct effects of the UoA are highly likely to not hinder recovery of ETP species.  2.3.2. Management: There is a strategy in place, with objective basis for confidence that it will work and regular review of potential effectiveness and practicality of alternative measures to minimise mortality  2.3.3. Information: Some quantitative information is adequate to assess UoA related mortality of ETP species | Action lead: LINK  Partner: SNH  Stakeholder: Poseidon | **8a.** Yr. 1 – Source available shape files for ETP species distribution (note that reference to ETP species includes relevant PMFs). | | **Complete**  ETP shape files have been provided to Masters student taking this task forward. |  |
| **8b**. Yr 1. GIS-based risk assessment. Listing of potential ETPs interacting with creel and trawl UoAs, and then mapping of ETP distribution overlap with UoA creel and trawling effort. | | **Complete**  The environmental sub-group has progressed this action. The list of ETPs provided in the pre-assessment has been reviewed and expanded by WWF, who then circulated to DAERA, SNH and JNCC. Good feedback on the comprehensive list and also which ETP species might interact with the fishery.  This task is being informed by a Masters student project with funding support from Fishmongers’ Hall. A number of current projects could inform this task:   * Aberdeen University is looking at the spatial overlap of this fishery with elasmobranchs. * Marine Protected Area Management and Monitoring (MARPAMM) projects being conducted in the Irish sea. * Spurdog trial through Cefas looking at 6 months of recorded data – focused on survivability as this species is becoming a chock species. Although this has been paused.   The masters ETP risk analysis project was completed:   * A final risk analysis score for the ETP species that were taken forward for analysis was produced through combining the scores of encounterability, aerial overlap and reported bycatch frequency. * Six species were indicated as high risk with the trawl. They are: porbeagle, spurdog, starry ray and tope, white skate and white cluster anemone. * For creel gear, humpback and minke whale were considered most at risk of entanglement – based on literature review - but did not have final scores due to absence of creel data.   Conclusions and recommendations were as follows:   * It was found that trawling posed a significant risk to ETP species * It was recommended to improve elasmobranch interaction records and best practice through consultation with: ICES Working Group on Elasmobranch Fishes (WGEF), Shark Trust UK and CEFAS * To improve the results of the study the following is recommended: * Conducting habitat suitability analysis to get a more accurate portrayal of where ETP species may actually inhabit. * Having greater industry consultation to ‘ground-truth’ some of the results. * Greater data of ETP interaction in the creel sector |  |
| Action lead: TBC | **8c.** Yr. 2 - Development of fishery dependant recording protocol, to record, analyse and monitor ETP interactions and outcomes (e.g. returned alive) for trawl and creel UoAs. | | **Complete**  A small amount of funding has been secured for this by SWFPA through the North Connect Fund.  Poseidon developed an ETP interaction log, based on reviewing existing recording protocols in practise for the SFSAG MSC certified fisheries and the Danish Fisheries Producer Organisation Vessel Diary (designed specifically to record ETP species interactions). |  |
| **8d.** Yr 3-4 - Development of options for management approaches for reducing ETP interactions and impacts, if necessary. | | This action has not yet commenced. |  |
| **8e.** Yr 2 - Establish a protocol / process for undertaking a regular review of alternative measures to minimise UoA related ETP mortality. Undertake review and document effectiveness and practicality of alternative measures. | | **Complete**  See 2d. |  |
| **8f.** Yr. 3 - Implementation of recording protocol and pilot projects for ETP management approaches. | | **On target**  The ETP Interaction Log (8c) will be tested with some willing skippers. This is potentially delayed due to the current COVID pandemic and Brexit uncertainties/complications.  Consideration is also being given to the most practical way of implementing a recording protocol, including use of the recently developed Clean Catch UK App. |  |
| **8g.** Yr. 4 - Mainstreaming of ETP management approaches and introduction of a risk-monitoring system. | | This action has not yet commenced. |  |
| **Action 9: Habitats**  **Overview:** The spatial scale, intensity and impact on commonly encountered and VMEs, needs to be quantified within the UoA. Based on this, appropriate management approaches need to be developed.  **Performance indicator:**  Trawl  **2.4.1: <60**  Trawl & Creel  **2.4.2: 60-79**  **2.4.3: 60-79**  Requirement at SG80:  2.4.1. Outcome status: The UoA is highly unlikely to reduce structure and function of commonly encountered habitats and VMEs to a point where there would be serious harm.  2.4.2. Management: There is a partial strategy in place to achieve Habitat Outcome 80 level. There is some quantitative evidence that management is being implemented and UoA complies with VME related management. | Action lead: Seafish  Partners: MSS, SNH  Stakeholder: Poseidon | **9a.** Yr. 1 – Review overlap of trawl and creel fisheries (footprint analysis) and vulnerability of commonly encountered habitats and VMEs, including Scottish PMF habitats and UK MPA network habitat features. | | **On target**  The environmental sub-group (ESG) agreed that burrowed mud would be considered a commonly encountered habitat when burrowed mud is not designated in a protected area, and is not associated with specific VMEs. Burrowed mud will be considered a VME if VME features are present, as designated by OSPAR and Priority Marine Feature (PMF) definitions:   * Where there are sea pens and burrowing megafauna * Volcano worm * Firework anemone * Burrowing heart urchins * Mud burrowing amphipod * Tall sea pens and Northern sea fan and sponge communities   A recent Masters project looked at habitat interactions with Nephrops gear, and comments showed:   * there are designated marine protected areas (MPAs) for burrowed mud features that do not have management measure in place [this could warrant voluntary measures being implemented in areas of priority]. * a need to better understand the impacts of creel and trawl gears on burrowed mud, and the recoverability of VMEs and commonly encountered habitats in the UoA. * clarification on the historical extent of VMEs, this is based on United Nations General Assembly resolution 61/106 in 2006. If damage to VMEs occurred before 2006 the fishery would not be held accountable for historical damage but further damage is not acceptable. If a VME is identified after 2006 then this is deemed to be its unimpacted state and vessels should avoid further damage. If fishery impact occurred after 2006 then the unimpacted level is the idealised expected recovery state (set in 2006) or whenever the VME has been identified.   It is noted that the Bangor Habitat Assessment tool allows users to insert known fishing data to calculate whether commonly encountered habitats would recover within five years to 80% of its unimpacted state, as set out in the MSC Standard.  The Steering Group discussed scope of the research needed to address this action and agreed it would more appropriate to do this at a PhD or post doc level.  WWF commented that a fishery impacting VMEs prior to 2006 and continued doing so to present day would lack proper accountability of the damage their activities had caused if the unimpacted reference point was ‘re-set’ in 2006.  The interpretation log from MSC on this point is available [here](https://mscportal.force.com/interpret/s/article/historical-cut-off-point-of-VME-unimpacted-level-SA3-13-4-1-1527262008264) and summarised in the below schematic.  NatureScot offered to research the status of the designation for ‘other burrowed mud’, and how it should be managed.  Actions:  Secretariat to:   * facilitate commissioning of further habitats research and search for funding. * speak with MSC Science and Standards team for more information on the 2006 baseline and interpretations |  |
| Action lead: SG  Resources: Masters student | **9b.** Yr. 2-3– Assessment of nephrops trawl impact on habitats, including analysis via Bangor University habitat assessment tool | | Timeline updated in V3.1 |
| **9c.** Yr 3-4 – Review VMEs based on knowledge of the historical extent and distribution. | | Timeline updated in V3.1 |
| Action lead: MSS  Partners: UK FAs | **9d.** Yr 2-3 - Review status of management measures development and implementation within UK MPA network. | | **On target**  This can be compiled by SNH for waters under their remit. Offshore waters are within the remit of JNCC. English territorial waters are in the remit of Natural England and IFCAs.  Noted that the Seafish Kingfisher MPA project will conduct a mapping and logging exercise of all protected areas in the UK and their designated management measures. (see 11b). This is expected to be completed in October 2021.  Actions:   * Review Seafish MPA mapping project when completed. | Re-ordered v2.3.  Updated timescale in V3.1 |
| Action lead: SG | **9e.** Yr. 2-4 - Development of a Habitat Management Plan including development of options for management approaches to manage habitat interactions and impacts. | | This action has not yet commenced. | Updated timescale to Yr2-3 (v1.8) Updated timescale in V3.1 |
| Action lead: MS | **9f.** Yr2-3 - Introduction of inshore-VMS (i-VMS), or equivalent, on all vessels <12m in length. | | **On target**  This action is being delivered through Marine Scotland commitment for Remote Electronic Monitoring for scallop fleets and through the inshore modernisation programme. | Updated timescale to Yr2-3 (v1.8) |
| Action lead: TBC | **9g.** Yr. 3 - Implementation of habitat management approaches, where required. Recording and analysis of all nephrops trawl VMS data. | | This action has not yet commenced. |  |
| **9h.** Yr 4 – Update footprint of fishery when i-VMS is available. | | This action has not yet commenced. |  |
| **9i.** Yr. 4 - GIS reporting on extent and intensity of fishing for all vessel lengths. Mainstreaming of habitat management approaches and introduction of the risk-monitoring system. | | This action has not yet commenced. |  |
| **Action 10: Ecosystem**  **Overview:** In the medium term (3-5 years) this will be informed by Actions 6 to 9. In the short-term there is opportunity to conduct a Scale Intensity Consequence Analysis (SICA) analysis.  **Performance indicator:**  Trawl **2.5.1:** **60-79**  Trawl **2.5.2:** **60-79**  Requirement at SG80:  2.5.1. Outcome: The UoA is highly unlikely to cause serious or irreversible harm.  2.5.2. Management: There is a partial strategy in place. | Action lead: Seafish  Partners: LINK, SNH, WWF  Stakeholders: Poseidon | **10a.** Yr. 1 – Review available data / information available on ecosystem interaction, including relevant to Actions 6 to 9. | | **Complete**  A dropbox library for the Environment Sub-group has been created.  A number of sources were provided during the SICA workshop. |  |
| **10b.** Yr. 1-2 - Constitute expert group and conduct SICA analysis to determine main ecosystems and ecosystem services impacted by nephrops trawling across the UoAs under assessment. | | **Complete**  A SICA workshop with an expert group on nephrops demersal trawl ecosystem impacts was held through a virtual, interactive workshop. The findings will inform action 10c. |  |
| **10c.** Yr. 3 - Identify and recommend further research and management actions that reduce disruption to the ecosystem and ecosystem services to acceptable levels. This may be aligned with actions 2, and 6 to 9. | | This action has not yet commenced.  This milestone will be informed by the SICA workshop reporting. |  |
| **10d.** Yr. 4-5 - Implement management measures as appropriate. | | This action has not yet commenced. |  |
| **Action 11: Compliance**  **Overview:** Focused on compliance with landing obligation and enforcement within MPAs  **Performance indicator:**  3.2.3 Compliance and enforcement **60-79**  Requirement at SG80:  (a) The monitoring, control and surveillance system has been implemented and demonstrated an ability to enforce relevant management measures, strategies and/or rules. | Action lead: SG  Partners: UK FAs | **11a**. Yr1-3 – Review the risks of non-compliance associated with the nephrops fishery (including in relation to the Landing Obligation) | | **On target**  This action requires that the fishery can demonstrate that it complies with national and international legislation.  Marine Scotland Compliance maintains a record of all non-compliances and can provide an anonymised record of non-compliance to the Steering Group. It would be helpful to have this for each of the respective enforcement bodies from across the various countries – MMO, DAERA, Marine Scotland Compliance.  It is noted that, in the absence of real-time, at-sea data, it is very difficult to ascertain fully whether vessels are complying or not – this is apt for many fisheries across the globe. Observer coverage would be useful to further inform this. The group agree that removing fish tails at sea is a legal procedure and not considered discarding.  It is agreed that the best way forward is to understand how the devolved administrations implement and enforce the LO. The Secretariat will review how the Landing Obligation is being dealt with in other EU/UK MSC certified fisheries and will also speak with Marine Scotland about levels of enforcement.  Actions: [from previous meetings]   * Secretariat to find out level of Marine Scotland/Cefas observer coverage. * SWFPA to update on other MSC certified fishery updates and LO. * Secretariat to review how the Landing Obligation is being addressed in EU MSC certified fisheries and share with the group. * Secretariat to speak with MMO, MS and Deara on Landing Obligation enforcement, and request any (anonymised) information on incidents of non-compliance.   [From 19 Oct 2020]   * SS (Sam Stone, Scot LINK) to review the Fisheries Bill and how it relates to the MAP legislation * Secretariat to:  1. follow up with MSC's Science and Standards team to understand if update had been made in the Standard for compliance with the landing Obligation 2. follow up with MMO, Daera and Marine Scotland for data on non-compliance with Landing Obligation within each Fishery Administration | Update timescale in V3.1 |
| **11b.** Yr 1-3 – Work with the industry to establish an appropriate system for monitoring within MPAs and other closed areas for all vessels. | | **On target**  Beyond implementation of vessel tracking & monitoring for vessels <12m (e.g. iVMS), thoughts on approaches to this milestone have not progressed further.  The Marine Protected Area Management and Monitoring Project (MarPAMM), which is developing tools for monitoring and managing a number of protected coastal marine environments in Ireland, Northern Ireland and Western Scotland (not including the Clyde). It is noted that the project has a strong inshore focus and does not cover offshore sites.  The MarPAMM project is expected to be completed by 31 March 2022. It will develop six MPA management plans for:   * Argyll region (including 7 SACs and 5 SPAs useful link [here](https://www.mpa-management.eu/wp-content/uploads/2019/11/MarPAMM-Argyll-Steering-Group-MPA-Summary-Paper.pdf)) * Outer Hebrides region (including 11 MPAs) * Murlough Special Area of Conservation * Carlingford Lough Special Protection Areas (cross-border) * Co Down – Co Lough region (cross-border) * North Coast Ireland – North Channel region (cross-border)   Kingfisher, the consultancy arm of Seafish, is working on a project to alert skippers to what management measures are in place in protected areas. The time lag between designation of protected areas and the implementation of management measures is noted. The Kingfisher project will catalogue these measures as they come into force.   * AC to obtain an update on MarPaMM progress and provide contact details of MarPAMM members to the Secretariat | Update timescale to Yr1-3 for iVMS introduction in v3.1 |
| **11c.** Yr 2-3 – Consult with Fisheries Control Agencies and wider stakeholders on proposed monitoring system. | | This action has not yet commenced. | Timeline updated V3.1 |
| **11d.** Yr 2-4 – Implement monitoring system. | | This action has not yet commenced. |  |
| **11e.** Yr2-3 – Provide evidence of measures in place to enforce management measures related to the Landing Obligation. | | This action has not yet commenced. | Timeline updated V3.1 |
| **11f.** Yr3 – Provide evidence of compliance (or lack of systematic non-compliance) within the nephrops fishery, including relative to Landing Obligation and closed areas / MPAs. | | This action has not yet commenced. |  |
| **Action 12: Fishery objectives**  **Overview:** Review implications of UK exit from EU.  **Performance indicator:**  3.2.1 Fishery specific objectives **80**  Requirement at SG80:  Short and long-term objectives which are consistent with achieving P1 & P2 outcomes are explicit within the fishery specific management system | Action lead: SG  Partners: UK FAs | **12a.** Yr 3-4 – Review how the UK exit from EU and the Fisheries Bill effect the legal framework and fishery objectives with specific focus on precautionary approach and MSY. | | **On target**  A review of Principle 3 scoring was undertaken and presented in a separate document titled ‘2021 General Review of P3 scoring for Project UK FIPs’. The results are summarised below: | Added v2.2 |
| **Cross - cutting** | Action lead: Whitby Seafoods  Partners: Young’s Seafoods | **Development of Fishery Management Plan** | | It is agreed by the steering group that Whitby Seafoods will lead development of the FMP, with support from Young’s Seafoods, the Secretariat and Poseidon.  Sections of the FMP will be allocated to the relevant steering group members to draft. | Added v2.3 |

1. https://www.ices.dk/community/groups/Pages/WKNephrops2019.aspx [↑](#footnote-ref-1)
2. https://mscportal.force.com/interpret/s/article/Scoring-stock-status-against-Bmsy-for-ICES-stocks-PI-1-1-1-1527262010506 [↑](#footnote-ref-2)
3. Carruthers, T. & D. J. Agnew, 2016. Using simulation to determine standard requirements for recovery rates of fish stocks. Marine Policy 73, pp 146–153 [↑](#footnote-ref-3)
4. Froese, R., Coro, G., Kleisner, K. and Demirel, N. (2014), Revisiting safe biological limits in fisheries. Fish and Fisheries.  [http://onlinelibrary.wiley.com/doi/10.1111/faf.12102/abstract](http://onlinelibrary.wiley.com/doi/10.1111/faf.12102/abstract%20%20) [↑](#footnote-ref-4)
5. https://www2.gov.scot/Topics/marine/Sea-Fisheries/discards/demersal [↑](#footnote-ref-5)