

Control Union (UK) Limited

Normandy & Jersey Lobster fishery

MSC Use of the Risk-Based Framework (RBF) in a Fishery Assessment

Control Union (UK) Limited

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1 Marine Stewardship Council use of the Risk-Based Framework

Table 1 – Fishery information

Fishery name
Normandy and Jersey Lobster
САВ
Control Union (UK) Limited
Date that the proposal to use the RBF is submitted to the MSC
17:00 UTC on the 19/09/2022
Date stakeholder comment period closes on the proposal to use the RBF
17:00 UTC on the 19/10/2022
PI that the RBF is to be applied for
2.2.1: Secondary species outcome
Justification for use
PI 2.2.1 (Secondary species outcome) - 'Main' secondary species identified at the ACDR stage included the brown/edible crab (<i>Cancer pagurus</i>), the spider crab (<i>Maja brachydactyla</i>) (both targeted) and the red gurnard (<i>Chelidonichthys cuculus</i>) (used as bait). The absence of stock assessments or information on biologically-based limits means that the RBF should be triggered for those scoring elements.
Species and area concerned: Spider crab – (<i>Maig brachydactyla</i>) : FAO Area 27 – 7e
Brown crab – (<i>Cancer pagurus</i>): FAO Area 27 – 7e
Red gurnard – (Chelidonichthys cuculus) FAO Area 27
Gear type concerned:
Crabs: Inkwell and parlour pots Red gurnard: unidentified yet.

A key purpose of the site visit is to collect information and speak to stakeholders with an interest in the fishery. For those parts of the assessment involving the MSC's Risk-Based Framework (RBF, see msc.org), we will be using a stakeholder-driven, qualitative and semi-quantitative analysis. To achieve a robust outcome from this consultative approach, we rely heavily on participation of a broad range of stakeholders with a balance of knowledge of the fishery. We encourage any stakeholders with experience or knowledge of the fishery to participate in these RBF analysis. Stakeholders wishing to be involved should review the information provided below and return answers to the questions posed in Section 10 to CU (UK), using the email address provided on the first page of this notification by



17:00 UTC on the 19/10/2022. Stakeholders who complete this questionnaire will also are offered the opportunity to discuss this RBF at a meeting as requested.



Marine Stewardship Council (MSC) Risk Based Framework Stakeholder Input

Secondary species

Normandy & Jersey Lobster fishery

Prepared by

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September 2022

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QA

Role	Signature	Date
Originator:	MD	14.09.22
Reviewer:	EV	14.09.22
Approver:	JN	16.09.22

1 Background

Following analysis of data records at the ACDR stage of the MSC full assessment of the Normandy & Jersey Lobster fishery, three secondary main species (one used as bait the other being targetted) were identified:

- Spider crab (Maja brachydactyla) : FAO Area 27 7e
- Brown crab (*Cancer pagurus*): FAO Area 27 7e
- Red gurnard (*Chelidonichthys cuculus*) FAO Area 27 assumed to be coming from ICES 3–8 (Northeast Atlantic) area

No biologically based limits are available for those stocks, derived either from analytical stock assessment or using empirical approaches. As such CU (UK) are required to announce the use of RBF for PI 2.2.1 for these elements.

The gear types are:

- Spider crab (*Maja brachydactyla*) : FAO Area 27 7e : trapped with pots (inbkwell / parlour pots)
- Brown crab (*Cancer pagurus*): FAO Area 27 7e : trapped with pots (inbkwell / parlour pots)
- Red gurnard (*Chelidonichthys cuculus*) FAO Area 27 : unidentified yet (bait species)

As per the requirements of Annex PF of the MSC FCP2.2., the required approach for PI 2.2.1 is use of the Productivity Susceptibility Analysis (PSA). The PSA is a tool that can be used by MSC Assessment Teams to assess the risk posed by a fishery to species for which there is only limited information available. The RBF process is intended to gather and use information from stakeholders in a structured manner; it is also intended to produce a more precautionary assessment of impact than if the MSC's default assessment tree is employed. We have tried to simplify the PSA process to produce this questionnaire, but there is still some complexity in the process. Where we ask for information from stakeholder on areas of this PSA we have highlighted in the following sections in green highlight.

If you have any queries about the MSC process, you can find more information at the MSC website (www.msc.org), including information about the fishery (https://fisheries.msc.org/en/fisheries/normandy-and-jersey-lobster/@@view); alternatively, you can get in touch with us directly (using the contact details below). The MSC also provides an official template for stakeholder comments, to use if you have views on this aspect of the fishery; it can be downloaded at http://www.msc.org/documents/get-certified/stakeholders. Thank you for taking the time to participate in this assessment.



2 Stakeholder information

Before you start the questionnaire, we need to have your contact details so that we can keep in touch with you as the assessment of the fishery proceeds through its different steps. This will ensure that you are kept fully up to date with progress and that you have further opportunities to participate in the assessment process.

We respect your privacy and security and will only use this information in accordance with the statement below and in compliance with EU GDPR.

3 Privacy, Transparency and Confidentiality

1. We ask for your e-mail address in case we need to contact you for clarification of your comments.

2. The MSC process requires assessment inputs to be transparent and verifiable. We will list you as a stakeholder that has contributed to this assessment and may publish your interview response in assessment documents.

3. Your privacy is important to us. We will not publish your e-mail address, nor will we share it with any third parties. In accordance with the statement above, please provide the following information:

Name:

Company/Organisation:

City/Town:

Country:

Email Address:

Phone Number (please include international code):



4 Principle 2

Catch profiles and data availability

For brown crab and spider crab which are targeted by the fishery, the client provided some basic catch data. However these were partial data and did not cover the entire 5 years requested by the team and therefore some data had to be extrapolated pending more accurate and recent data from the client at the site visit. Regarding red gurnard, apart from an estimated quantity of fish used per pot as bait, no other data were provided to the team. Therefore, similar to the two crab species, data were largely extrapolated by the team. The origin of the bait was not precisely communicated to the team (France - UK) and catch area was assumed to be FAO 27 and potentially ICES 3-8 (Northeast Atlantic).

5 Supporting information

The table below shows the stock and gear combination under consideration for the RBF stakeholder input

Table 1. Overview of three main secondary species for UoAs identified at ACDR.

FAO 27	
Spider crab – (<i>Maja brachydactyla</i>)	
FAO 27	
Brown crab – (<i>Cancer pagurus</i>)	
FAO 27 (assumed to be)	
Red gurnard – (Chelidonichthys cuculus)	

In line with Annex PF of the MSC Fisheries Certification Process FCP 2.2, the following information should be provided to stakeholders prior to the RBF workshop taking place:

- Management arrangements in place together with any specific strategies, such as bycatch mitigation or recovery strategies
- Descriptions of any monitoring strategies in place, including at-sea observer programmes (coverage, duration, objectives).
- Maps of the distribution of fishing effort within the jurisdictional boundaries of the fishery
- Maps of distribution of all fishing effort on the target stock outside the fishery being certified
- Species, habitat and community distributions (including depth ranges)

Management systems

There are some management systems applied to both crab species which include, a Minimum Landing Size, a restriction/limit on the number of pots per vessel and also a limit to the total number of pots for the entire fleet, an obligation to include an escape door to all pots and some seasonal closure (spider crab during moulting period).

For red gurnard the team has not been made aware of any management system at the level of the UoA or of the stock of origin.

Monitoring strategies

Some monitoring is done for both crab species with annual surveys undertaken by both Normandy and Jersey through their respective entities (IFREMER and Jersey Marine Ressources). Regarding red gurnard, the team has not been made aware of any monitoring strategy in place either at UoA level or larger stock level.



6 Guide to PSA

The PSA is described in detail in the MSC Fisheries Certification Process V2.2 (Annex PF4, MSC 2018).

In summary, the data required for the PSA are divided in to two sections, one covering 'productivity' attributes (which effectively describe the biological attributes of the species', and one covering 'susceptibility' attributes (which effectively describe the potential for interaction between the species and the UoA).

The productivity attributes for a species are species-specific and do not change between fisheries, and the Assessment Team has already derived productivity information for each species from available online sources.

Information and provisional scoring of 'Productivity' is provided in the following sections. We request that you review this information and confirm that you agree with the Assessment Team's findings, or otherwise.

Information of "Susceptibility" is provided in the following sections. Please, review the 'Susceptibility' information provided and please use the space provided to draft your own scores for susceptibility to support finalisation of the PSA scores for the species under review.

7 Susceptibility attributes and scores

A few guidance notes have been listed below to aid stakeholders in the completion of the susceptibility questionnaire. Please note that this guidance is not exhaustive and stakeholders are encouraged to consult the MSC Fisheries Certification Requirements v2.01 (Annex PF).

Susceptibility attribute	Low susceptibility (Low risk, score=1)	Medium susceptibility (medium risk, score=2)	High susceptibility (high risk, score=3
Areal overlap (availability) Overlap of the fishing effort with a species concentration of the stock	<10% overlap	10-30% overlap	>30% overlap
Encounterability The position of the stock/species within the water column relative to the fishing gear, and the position of the stock/species within the habitat relative to the position of the gear	Low overlap with fishing gear (low encounterability)	Medium overlap with fishing gear	High overlap with fishing gear (high encounterability) Default score for target species (P1)
Selectivity of gear type Potential of the gear to retain species	a Individual < size at maturity are rarely caught	a Individuals < size at maturity are regularly caught	a Individuals < size at maturity are frequently caught
	b Individuals < size at maturity can escape or avoid gear	b Individuals < half the size at maturity can escape or avoid gear	 Individuals < half the size at maturity are retained by gear
Post-capture mortality (PCM) The chance that, if captured, a species would be released and that it would be in a condition permitting subsequent survival	Evidence of majority released postcapture and survival	Evidence of some released postcapture and survival	Retained species or majority dead when released Default score for retained species (P1 or P2)

 Table 2: PSA susceptibility attributes and scores (extract from MSC FCRv2.0, Annex PF)

Where there is limited information available to score a susceptibility attribute, the more precautionary score shall be awarded

Aerial overlap:

- Where the impacts of fisheries other than the UoA are taken into account, the areal overlap shall be scored as the combined overlap of all listed fisheries with the areal concentration of a stock



- The scoring of areal overlap shall consider the concentration of species and the overlap of the fishing gear with the concentration species

Encounterability:

- Where the impacts of fisheries other than the UoA are taken into account, encounterability shall be scored as the combined encounterability of all listed fisheries

- The scoring of encounterability shall consider the concentration of species and the overlap of the fishing gear with the concentration species

- The deployment of fishing gear in relation to each species adult habitat is the main aspect to be considered for each species

Gear selectivity:

'Rarely' means that the capture of individuals smaller than the size at maturity occurs in less than 5% few gear deployments.

'Regularly' means that the capture of individuals smaller than the size at maturity occurs in 5% to 50% of the gear deployments.

'Frequently' means that the capture of individuals smaller than the size at maturity occurs in more than 50% of gear deployments.

Post-capture mortality:

- The team shall use its knowledge of species biology and fishing practice together with independent field observations to assess the chance that, if captured, a species would be released and that it would be in a condition to permit subsequent survival

- In the absence of observer data or other verified field observations made during commercial fishing operations that indicate the individuals are released alive and post-release survivorship is high, the default value for the PCM of all species shall be high



8 Spider crab - (*Maja brachydactyla*)

Table 3. Productivity Susceptibility Analysis for spider crab (Maja brachydactyla)

Performance Indicator	2.2.1			
Productivity				
Scoring element (species)	Maja brachydactyla (Spider crab)			
Attribute	Rationale	Score		
Average age at maturity	1-2 years	1		
Average maximum age	Data deficient	3		
Fecundity	50,000 – 500,000 : (DORIS - Données d'Observations pour la Reconnaissance et l'Identification de la faune et la flore Subaquatiques)	1		
Average maximum size Not scored for invertebrates	Not scored for invertebrates	NA		
Average size at maturity Not scored for invertebrates	Not scored for invertebrates	NA		
Reproductive strategy	External brooders (female carry the eggs on their carapace) (DORIS)	3		
Trophic level	3 (Trinity College Dublin)	2		
Density dependence Invertebrates only	Scored precautionary as lack of evidence – Particular behaviour with Spider crab – create "mounts" or aggregates of individuals to increase protection of juveniles and immatures. (Sampedro & Gonzalez-Gurrriaran, 2004)	3		
Productivity score		2.17		
Susceptibility				
Attribute	Rationale	Score		



Areal Overlap	Source - https://www.aquamaps.org/receive.php?type_of_map=regular Found on rocky sandy bottoms. Usually inhabits weed covered substrata or sandy / shingly substrata where weeds occur (Ingle, 1997). The species is targeted by the Normandy and Jersey fishery therefore areal overlap is high.	3
Encounterability	Based on the gear / pots being deployed under 40 m depths (encountered depths 0-90 m). The species is targeted by the Normandy and Jersey fishery therefore encounterability is high.	3
Selectivity of gear type	Parlour pots used in the lobster fishery are selective gear designed to allow undersized individual to escape. Inkwell are not so selective.	2
Post capture mortality	>80% with trawl, expected to be at least as high with pots – Boussarie et al., 2020	1
Susceptibility score		
Overall PSA score		
MSC score		

9 Edible crab (Cancer pagurus)

Table 4. Productivity Susceptibility Analysis for edible crab (Cancer pagurus)

Performance Indicator	2.2.1		
Productivity			
Scoring element (species)	Cancer pagurus (edible crab)		
Attribute	Rationale	Score	
Average age at maturity	10 years (Marine conservation society)	2	
Average maximum age	30 (Marine conservation society)	3	



Fecundity	0.4 up to 3 millions eggs (Öndes et al., 2016)	1
Average maximum size Not scored for invertebrates	Not scored for invertebrates	NA
Average size at maturity Not scored for invertebrates	Not scored for invertebrates	NA
Reproductive strategy	External brooders (female carry the eggs on their carapace) (Sealife Base)	3
Trophic level	3 (Trinity College Dublin)	2
Density dependence Invertebrates only	Scored precautionary as lack of evidence	3
Productivity score		2.33
Susceptibility		
Attribute	Rationale	Score
Areal Overlap	Source - https://www.aquamaps.org/receive.php?type_of_map=regular Broad range of environments, ranging from soft muds to rocky substrata. Adults occur between 6-100 m (usually 6-40m) (Tonk & Rozemeijer, 2019)	3
Encounterability	Based on the gear / pots being deployed under 40 m depths	3
Selectivity of gear type	Not really selective in terms of crustaceans (inkwell and parlour pots)	2
Post capture mortality	Survivability estimated good when released (Rodrigues et al., 2015)	1
Susceptibility score		1.43



Overall PSA score	2.73
MSC score	≥80

10 Red gurnard (Chelidonichthys cuculus)

 Table 5. Productivity Susceptibility Analysis for red gurnard (Chelidonichthys cuculus)

Performance Indicator	2.2.1			
Productivity				
Scoring element (species)	Chelidonichthys cuculus (red gurnard)			
Attribute	Rationale	Score		
Average age at maturity	No data – precautionary score	3		
Average maximum age	4 years – Gürlek et al., 2017	1		
Fecundity	No data – precautionary score	3		
Average maximum size Not scored for invertebrates	500 mm (FishBase)	1		
Average size at maturity Not scored for invertebrates	250 mm (FishBase)	1		
Reproductive strategy	Broadcast spawner	1		
Trophic level	3.8 (Fishbase)	3		
Density dependence Invertebrates only	Not scored			
Productivity score		1.86		
Susceptibility				
Attribute	Rationale	Score		



Areal Overlap	Species is used as bait by the fishery so areal overlap is maximum.	3
Encounterability	Based on the gear / pots being deployed under 40 m depths (encountered depth 10 – 400 m but usually 20-200 m) (DORIS.fr) Species is used as bait by the fishery encouterability is maximum.	3
Selectivity of gear type	Gear (lobster pots)	1
Post capture mortality	Red gurnards are used as bait in this fishery.	3
Susceptibility score		1.65
Overall PSA score		
MSC score		

11 Stakeholder comments on red gurnard (*Chelidonichthys cuculus*), edible crab (*Cancer pagurus*) and spider crab (*Maja brachydactyla*) PSAs

1) Are there any 'Productivity' provisional scores that you do not agree with?

2) If you disagree with any provisional score, please provide your score and any supporting information with references if available.

3) Are there any 'suspectability' provisional scores that you do not agree with?

4) If you disagree with any provisional score, please provide your score and any supporting information with references if available.