

<b>Title:</b> Crab and Lobster Byelaw 2023 <b>IA No:</b> EIFCA0013 <b>RPC Reference No:</b> <b>Lead department or agency:</b> Eastern Inshore Fisheries and Conservation Authority (IFCA) <b>Other departments or agencies:</b> Marine Management Organisation, Natural England	<b>Impact Assessment (IA)</b>		
	<b>Date:</b> 09/02/2023		
	<b>Stage:</b> Development		
	<b>Source of intervention:</b> Domestic		
	<b>Type of measure:</b> Secondary legislation		
<b>Contact for enquiries: Julian Gregory (CEO), eastern IFCA, <a href="mailto:mail@eastern-ifca.gov.uk">mail@eastern-ifca.gov.uk</a>, 01553 775321</b>			
<b>Summary: Intervention and Options</b>			<b>RPC Opinion:</b> Not Applicable

**Cost of Preferred (or more likely) Option (in 2019 prices)**

Total Net Present Social Value	Business Net Present Value	Net cost to business per year	Business Impact Target Status
£m	£m	£m	Non qualifying provision

**What is the problem under consideration? Why is government action or intervention necessary?**

Four of the Authority's byelaws inherited from Eastern Sea Fisheries Joint committee restrict Crab (*Cancer pagurus* and *Necora puber*) and lobster (*Homarus gammarus*) fisheries applying locally important management to these fisheries. On review, the broad effects of the byelaws are considered necessary to ensure healthy seas, sustainable fisheries and industry viability, primarily as a result of redressing market failures which potentially lead to unsustainable practices. The wording of the byelaws requires revision to ensure clarity and provide consistency with other IFCA byelaws.

**What are the policy objectives of the action or intervention and the intended effects?**

The objective of the measures is to ensure healthy crab and lobster stocks by protecting reproductive capacity and ensuring exploitation is sustainable with long-term yields.

It is intended that the effect of existing management measures are maintained, namely preventing the removal of actively spawning individuals and the removal of low yield (low meat yield) edible crabs.

**What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)**

The 'do nothing' option would result in maintaining the current, inherited byelaws. This is not considered appropriate as the byelaws are not consistent with modern legislative standards and will benefit from additional clarity.

Replacement of the byelaws with voluntary measures to the same effect would not sufficiently redress the potential for market failures to lead to unsafe practices.

The preferred option is to revoke the inherited byelaws and replace with the 'Crab and Lobster Byelaw 2023' which will maintain the protective effects of the inherited byelaws and update wording to ensure clarity and consistency.

<b>Will the policy be reviewed?</b> It will be reviewed. <b>If applicable, set review date:</b> 03/2029					
Is this measure likely to impact on international trade and investment?			No		
Are any of these organisations in scope?		MicroYes	Small Yes	Medium No	LargeNo
What is the CO <sub>2</sub> equivalent change in greenhouse gas emissions? (Million tonnes CO <sub>2</sub> equivalent)			Traded: n/a	Non-traded: n/a	

***I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.***

Signed by the responsible SELECT SIGNATORY: \_\_\_\_\_ Date: \_\_\_\_\_

# Summary: Analysis & Evidence

# Policy Option 1

Description:

## FULL ECONOMIC ASSESSMENT

Price Base Year 2019	PV Base Year 2020	Time Period Years	Net Benefit (Present Value (PV)) (£m)		
			Low: Optional	High: Optional	Best Estimate:
<b>COSTS (£m)</b>	<b>Total Transition (Constant Price) Years</b>		<b>Average Annual (excl. Transition) (Constant Price)</b>		<b>Total Cost (Present Value)</b>
Low	Optional		Optional		<b>Optional</b>
High	Optional		Optional		<b>Optional</b>
Best Estimate	0		0		<b>0</b>
<b>Description and scale of key monetised costs by 'main affected groups'</b>					
No monetised costs identified					
<b>Other key non-monetised costs by 'main affected groups'</b>					
No non-monetised costs identified					
<b>BENEFITS (£m)</b>	<b>Total Transition (Constant Price) Years</b>		<b>Average Annual (excl. Transition) (Constant Price)</b>		<b>Total Benefit (Present Value)</b>
Low	Optional		Optional		<b>Optional</b>
High	Optional		Optional		<b>Optional</b>
Best Estimate	0		0		<b>0</b>
<b>Description and scale of key monetised benefits by 'main affected groups'</b>					
No monetised benefits can be estimated					
<b>Other key non-monetised benefits by 'main affected groups'</b>					
The key non-monetised benefits relate to allowing the use of edible crab waste products as bait and the protective effects on stock sustainability and contribution to sustainability and resilience of the crab and lobster fisheries in the Eastern IFC district.					
<b>Key assumptions/sensitivities/risks</b>					<b>Discount rate (%)</b>
					n/a
The key assumption is that the restrictions will have a beneficial impact on stock sustainability. The key risk relates to other factors impacting stock sustainability not addressed by the proposed measures.					

## BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:			Score for Business Impact Target (qualifying provisions only) £m:
Costs: n/a	Benefits: n/a	Net: n/a	
			n/a

# Evidence Base

## Problem under consideration and rationale for intervention

Edible crab (*Cancer pagurus*) and lobster (*Homarus gammarus*) are important fisheries throughout the Eastern IFC district. The annual average first sale value of the Edible crab and lobster fisheries operating within the district are estimated as £964,106 and £889,132 respectively, supporting circa 60 vessels<sup>1</sup>. Velvet crab (*Necora puber*) fisheries appear much less important economically, with an annual first sale value of circa £1651. It is thought that these are typically caught as by-catch and landed for use as bait, with a limited market. It is noteworthy that the fishery has supported much larger volumes of landings historically when supported by a market.

Crab and lobster fisheries also contribute to the wider longshore economy, particularly on the North Norfolk Coast where the local inshore fishery is intrinsic to the sense of place and is of high social value.

The latest available Cefas stock assessment for edible crab<sup>2</sup> indicates that exploitation of edible crab stocks in the Southern North Sea are stable, above maximum sustainable yield and that spawning biomass is between reference target and the limit for both species. The most recent Eastern IFCA stock assessment<sup>3</sup> for the fishery which occurs within the district indicates that the fishery is generally stable and not under immediate threat.

The latest available Cefas stock assessment for lobster<sup>4</sup> indicates that the fishery within East Anglia is being exploited above maximum sustainable yield and that the spawning stock biomass is low for both sexes however, the assessment also indicates that confidence in the assessment is low due to limited data informing the assessment. The most recent Eastern IFCA assessment of the local fishery indicates that the stock is relatively stable.

Eastern IFCA does not undertake a stock assessment for velvet crabs due to the low level of associated fishing activity.

The Authority has a duty to ensure sustainable fisheries and balance the social and economic benefits of fishing with the need to protect the marine environment<sup>5</sup>. In addition, the UK government has made commitments to delivering Good Environmental Status<sup>6</sup> in fisheries including in relation to healthy stocks and fisheries objectives including in relation to sustainability and ecosystems<sup>7</sup>.

Fishing activities can potentially cause negative outcomes as a result of market failures. These failures can be described as:

1. Public goods and services – a number of goods and services provided by the marine environment such as biological diversity are ‘public goods’ (no-one can be excluded from benefiting from them but use of the goods does diminish the goods being available to others). The characteristics of public goods, being available to all but belonging to no-one, mean that

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<sup>1</sup> According to a MMO data release ATI2966, 10/01/2023. Based on value of landed catch caught from within the following ICES statistical rectangles: 33F1, 34F0, 34F1, 35F0, 35F1. 32F1 was not included in the estimate as the vast majority of the statistical rectangle falls outside of the Eastern IFC district. With the exception of 34F0, the ICES statistical rectangles used include area outside of the Eastern IFC district. The data set is known to exclude data relating to catch which is sold directly to the public (ordinarily where the fisher sells catch to public themselves without the involvement of a registered buyer).

<sup>2</sup> Cefas, Edible Crab (*Cancer pagurus*) Cefas Stock Status report 2019, October 2020

<sup>3</sup> Brown crab Stock Assessment 2020, Tom Bridges, Nov 2020

<sup>4</sup> Cefas, Lobster (*Homarus Gammarus*) Cefas Stock Status report 2019, October 2020.

<sup>5</sup> S.153 Management of Inshore Fisheries, Marine and Coastal Access Act 2009 c.23

<sup>6</sup> UK Marine Strategy

<sup>7</sup> Fisheries Act 2020 c.22

individuals do not necessarily have an incentive to voluntarily ensure the continued existence of these goods which can lead to under-protection/provision.

2. Negative externalities – negative externalities occur when the cost of damage to the marine environment is not fully borne by the users causing the damage. In many cases no monetary value is attached to the goods and services provided by the marine environment and this can lead to more damage occurring than would occur if the users had to pay the price of damage. Even for those marine harvestable goods that are traded (such as wild fish), market prices often do not reflect the full economic cost of the exploitation or of any damage caused to the environment by that exploitation.
3. Common goods - a number of goods and services provided by the marine environment such as populations of wild fish are 'common goods' (no-one can be excluded from benefiting from those goods however consumption of the goods does diminish that available to others). The characteristics of common goods (being available but belonging to no-one, and of a diminishing quantity), mean that individuals do not necessarily have an individual economic incentive to ensure the long-term existence of these goods which can lead, in fisheries terms, to potential overfishing. Furthermore, it is in the interest of each individual to catch as much as possible as quickly as possible so that competitors do not take all the benefits. This can lead to an inefficient amount of effort and unsustainable exploitation.

IFCA byelaw can aim to fulfil government policy and redress these sources of market failure in the marine environment in the following ways:

- Management measures will support continued existence of public goods in the marine environment by conserving the range of biodiversity in the sea of the Eastern IFC District.
- Management measures will also support continued existence of common goods in the marine environment by ensuring the long-term sustainability stocks in the Eastern IFC District.

Eastern IFCA inherited four byelaws from its predecessor (Eastern Sea Fisheries Joint Committee) which relate to crab and lobster fisheries, and which require review.

#### Byelaw 5: Prohibition on use of edible crab (*Cancer pagurus*) for bait

The Sea Fisheries (Shellfish) Act 1967<sup>8</sup> (hereafter 'the shellfish Act') prohibits the removal of soft shelled (crab which has recently cast its shell) and berried edible crabs except if they are to be used for bait. This byelaw has the effect of prohibiting the use of any edible crab as bait so as to prevent the removal of soft shelled and berried crab for that purpose, enabling them to contribute to the spawning stock biomass.

Edible crab is anecdotally the preferred bait for catching lobsters and whelk. Without the prohibition under the inherited byelaw, it is likely that a significant amount of berried and soft shelled crab could be removed from the fishery. This has the potential to reduce the spawning stock biomass, negatively impacting sustainability of the fishery.

The Authority has however received many reports for several years to the effect that consideration should be given to the use of cooked crab waste (cooked offal, also referred to as '*shickle*'). The wording of the inherited byelaw prevents the use of any crab presently but many stakeholders feel it would be beneficial to enable the use of waste products which will have the effect of reducing costs of fishermen paying to dispose of such also. Some however also feel that the total prohibition is necessary on the basis that it could lead to an inshore industry of catching crab just to use as bait, which will increase effort and remove less valuable crabs.

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<sup>8</sup> Sea Fisheries (Shellfish) Act 1967 c.83

### Byelaw 6: Berried (egg-bearing) or soft shelled crab (*cancer pagurus*) or lobster (*Homarus Gammarus*)

Whilst the shellfish Act prohibits the removal of berried and soft-shelled crab and lobster, its application is restricted to 'relevant fishing vessels' (i.e. commercial, licenced fishing vessels) and so does not apply in relation to non-commercial fishing activity. Some parts of the Eastern IFC district have relatively high levels of recreational crab and lobster fishing. In addition, with respect to edible crab, the shellfish Act allows for their removal as bait with potential negative impacts on stock sustainability (*ante*).

In particular, preventing the removal of egg-bearing crabs and lobsters from the fishery has the potential to benefit the long-term sustainability of the fishery by ensuring that individuals have spawned at least once prior to be removed from the fishery. With respect to edible crabs, this is particularly important given the smaller minimum size within the Eastern IFC district (115mm as opposed to 130mm in the rest of the Southern North Sea).

### Byelaw 7: parts of shellfish

This byelaw requires that edible crabs, velvet crabs and lobsters must be landed whole such that compliance with any relevant minimum landing size can be determined. i.e. if crab claws are landed separate from the body of a crab, there is no means of determining if the crab had met the minimum size. This byelaw enhances the effectiveness of minimum size rules.

### Byelaw 10: Whitefooted edible crab (*Cancer pagurus*)

Crabs regularly cast their shells to mate and to allow for additional growth. Initially after establishing a new shell, crab meat yields are particularly low, with a high proportion of the biomass consisting of water. Such crabs are referred to as 'whitefooted' crabs because the tips of the claws and appendages have not yet turned black but are instead white to grey. These crabs are not sought after to sell to market for human consumption but are suitable as bait. The value of these crabs is considered less, because they are not sold for human consumption, and if left (for several months) their yield will increase and be of greater value. This byelaw prohibits the removal of whitefooted crab to prevent such being used as bait and to support the viability of the fishery, ensuring that crabs stay within the fishery until they are of a higher value which also supports longer-term yield in the fishery and greater sustainability. It is thought that there is an abundance of whitefooted crab on the North Norfolk coast, potentially as a result of the shallow water depth<sup>9</sup> and that typically, edible crab migrate from the North Norfolk Coast to populate the rest of the Southern North Sea fishery. As a result, protection of whitefooted crab will contribute to the sustainability of the southern North Sea edible crab fishery generally.

In the context of the stock assessments for crab and lobsters (*ante*), it is considered necessary to maintain the protective effect of the above byelaws to prevent market failures from contributing to stock decline in particular and to fulfil government policy on sustainable fisheries.

However, the wording and application of the byelaws have been reviewed to ensure they are fit for purpose and effective. This has included through informal consultation with fishery stakeholders (*post*).

## **Rationale and evidence to justify the level of analysis used in the IA (proportionality approach)**

The likely impact of measures is considered low, given that the measures are already in existence and enforced.

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<sup>9</sup> The Norfolk Crab Fishery, Ministry of Agriculture, Fisheries and Food: July 1966

The evidence for the requirements of the measures includes stock assessments undertaken by Cefas and Eastern IFCA which represent the best available evidence. It is acknowledged that the confidence on the Cefas lobster stock assessment is low (*ante*).

Consideration of impacts is based primarily on data generated from 'first sales notes' for the associated species. It is understood that spatially, the data is not of sufficient resolution to distil information relevant only to the Eastern IFC district and so potentially over-estimates the value of the fishery in monetary terms. However, first sales notes are also thought to underestimate landings as many inshore fishermen sell catch directly to the public rather than to a registered buyer and so do not generate a 'first sales note'.

The level of evidence considered is considered appropriate given the limited estimated financial impact and because the proposals are, for the most part, maintaining the *status quo*.

## **Description of options considered**

### "Do nothing" option

"Do nothing" in the context of the review of the existing byelaws would maintain the protective effect of the measures already in place. However, the wording of the byelaws is not consistent with modern legislative approaches and standards. This is not the preferred option because revision of the wording of the byelaw could enhance transparency and clarity.

### Revocation of the byelaws without regulatory replacement

The byelaws are considered to have a beneficial effect on the sustainability of crab and lobster stocks within the Eastern IFC district and wider southern North Sea. Revocation would not be in keeping with Government policy on the protection of sustainable fisheries and would potentially lead to market failures with negative outcomes. In addition, an informal consultation on the matter has indicated that generally, fishery stakeholders are of the view that the measures should be maintained. Given the risk posed by potential for market failures to contribute to negative outcomes on stock sustainability, and the current economic context (i.e. the cost of living crisis), voluntary measures are not considered likely to be effective.

### Crab and Lobster Byelaw 2023 (Preferred option)

The effects of the inherited byelaws are considered likely to contribute to sustainable fisheries within the Eastern IFCA district and the southern North Sea. Informal consultation and wider dialogue with fishery stakeholders has indicated a general preference for retaining the measures with the exception for the prohibition on using edible crab for bait, for which there is some support for amending to enable the use of cooked offal.

The full outputs of the informal consultation are available from the Eastern IFCA website<sup>10</sup>.

The preferred option therefore is to maintain the management measures but through a new byelaw, the wording of which will enhance transparency and clarity through the adoption of modernised wording.

In addition, the preferred option includes an amendment to the effect that edible crab cooked offal can be used as bait, in addition to allowing recreational hook and line fishers to use edible crab for bait, so long as it was not removed from the fishery within the

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<sup>10</sup> [www.eastern-ifca.gov.uk](http://www.eastern-ifca.gov.uk)

Eastern IFCA district. It is felt that these amendments will be of benefit to commercial and recreational fishery stakeholders but not diminish the intended protective effect of the provision, especially given the prohibition on removal of soft-shelled, berried and 'whitefooted' crabs.

## **Policy objective**

The aim of the preferred option is to ensure that the crab and lobster fisheries within the Eastern IFC district do not negatively impact on stock sustainability of local and regional (Southern North Sea) crab and lobster fisheries.

The preferred option is intended to have the following effects:

- Preventing the removal of low yield (low value) edible crab and lobsters and in particular, mitigate the risk of a fishery becoming established which seeks to capture low quality crab to use as bait;
- Enhance the likelihood that individual edible crabs, velvet crabs and lobsters will have spawned at least once prior to removal of the fishery;
- Remove barriers to utilising waste products from edible crab processing and use of edible crab as bait in recreational hook and line fisheries;
- Enhance the effectiveness of minimum size legislation;
- Enhance clarity and transparency of the established measures by revising the byelaw wording to be in keeping with contemporary legislative standards.

It is anticipated that if the measures are successful in achieving their intended effects, there will be no further degradation of the crab and lobster stocks within the Eastern IFC district.

## **Summary and preferred option with description of implementation plan**

It is intended that the preferred option will be given effect as an IFCA byelaw under s.155 of the Marine and Coastal Access Act (secondary legislation).

Limited transition will be required given that the measures primarily maintain the status quo however, the Authority will promulgate the revisions should they be confirmed by the Secretary of State.

Eastern IFCA will be responsible for implementation and enforcement of the measures and for monitoring their effectiveness.

IFCA byelaws are subject to review at least every six years in accordance with the 'management cycle' set out in Defra guidance to IFCA's on byelaw making powers<sup>11</sup>.

## **Monetised and non-monetised costs and benefits of each option (including administrative burden)**

The byelaw will maintain restrictions which reduce the amount of catch which can be retained during a fishing trip in line with existing measures and informal consultation has identified that the preference of fishery stakeholders likely to be effected by the measures is to retain the restrictions.

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<sup>11</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/182343/ifca-byelaw-guidance.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/182343/ifca-byelaw-guidance.pdf)

Enabling the use of edible crab waste products as bait which is likely to reduce costs for some fishery stakeholders and informal consultation has indicated that generally this will be beneficial.

The measures will contribute to sustainable fisheries and ecosystems which are resilient to natural and anthropogenic change.

### **Direct costs and benefits to business calculations**

No monetised costs could be estimated for the proposed measures. This reflects that the proposal will maintain the status quo with the exception of enabling some use of edible crab as bait. This is likely to reduce costs for some fishery stakeholders, but there is insufficient data to determine a monetised benefit.

### **Risks and assumptions**

The key assumption is that the restrictions will enhance stock sustainability.

The measures will reduce the likelihood that pre-spawning crab and lobsters are removed from the fishery. It is a well-established principle of fisheries management that ensuring individuals reproduce before removal from a fishery is beneficial to the sustainability of stocks.

The key risk is that crab and lobster fisheries become unsustainable as a result of other factors (e.g. climate change) which the proposed measures do not address. This is mitigated through the continual monitoring of the stocks.

### **Impact on small and micro businesses**

Small and micro businesses will be impacted by the measures. The vast majority of the inshore fishing industry affected by these measures falls within the definition of micro business and therefore cannot be avoided.

### **Wider impacts (consider the impacts of your proposals)**

Review and revision of the existing crab and lobster byelaw will ensure the important protective measures are effective and fit for purpose, providing stakeholders with additional clarity and transparency and enhance confidence in the effectiveness of the measures.

The protective effects of the restriction will contribute to sustainable and resilient fisheries.

### **A summary of the potential trade implications of measure**

None identified

### **Monitoring and Evaluation**

Effectiveness of the measures will be monitored through annual assessment of the crab and lobster fisheries, compliance monitoring and continued dialogue with fishery stakeholders.

The key factors which will impact success are compliance with the restrictions and natural changes to crab and lobster stocks.

The byelaw will be reviewed within six years of coming into effect.