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Consultation on proposals for increasing the minimum landing size of lobster

Combined consultation paper and partial regulatory impact assessment

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COMBINED CONSULTATION PAPER AND PARTIAL REGULATORY IMPACT ASSESSMENT

CONSERVATION OF LOBSTERS: INCREASE OF MINIMUM LANDING SIZE (MLS)

1.0 Purpose and intended effect of the proposal

1.1 Objective

1. To implement stock conservation measures for lobsters.

1.2 Background

2. The European clawed common lobster (*Homarus gammarus*) is one of our largest native crustaceans. It can be found in the Eastern Atlantic waters from the Arctic Circle to the Mediterranean (the British Isles is at the centre of distribution) and is one of the most valuable commercial species on the UK market.

3. European lobsters take around five to seven years in the British Isles to reach 87 mm carapace length (CL), which is the MLS set at EU level. Although female lobsters may carry eggs at sizes well below 80 mm CL, in many areas the size at which most female lobsters mature is above the minimum landing size. In some areas of England and Wales, there are already local Sea Fisheries Committee byelaws in place which set an MLS of 90 mm CL.

4. In 2005 the fishing industry in the UK comprised around 6,300 fishing vessels. Approximately two-thirds of vessels have a shellfish endorsement on their licence. However, not all of these are currently engaged in targeting lobsters and, as fishermen will target different species at different times of the year, we therefore do not know the precise level of fishing effort. The UK lobster fishery has been relatively stable for the last 6 years. In total, officially recorded landings in 2005 were 1,300 tonnes, with a value of £12 million. Of this, 890 tonnes (a value of £7.6 million) were landed by English vessels into England and Wales.

5. Most UK lobster stocks are currently being fished sustainably, and the recently-introduced Restrictive Shellfish Licensing Scheme seeks to maintain exploitation at current levels by limiting increases in fishing effort that could threaten crab and lobster stocks. Whilst the Shellfish Licensing Scheme restricts entry of new vessels to the fishery, it cannot control increases in effort by vessels that are licensed but fishing below their current capacity, i.e. the Scheme does not restrict the number of days fished or the number of pots fished. Scientific advice indicates that lobster stocks are at risk of being

exploited beyond sustainable limits if fishing effort increases significantly, and so the introduction of stronger technical measures is required in the absence of any further limitations on fishing effort.

6. The Department consulted the fishing industry in 2002 on whether the landing of berried lobsters should be prohibited and on the technical aspects of a draft Order in 2005. After detailed consideration of the consultation responses and scientific advice, Ministers concluded that an increase in MLS has the potential to deliver broadly the equivalent benefits to conservation of the stock at lower enforcement costs than a prohibition on the landing of berried females. There are also practical problems with enforcement of a prohibition on landing berried lobsters, whereas the enforcement of an increased minimum landing size (MLS) is more straightforward and likely to have greater compliance levels.

7. Stock assessment modelling shows that increasing the MLS of lobsters should provide significant increases in egg production, while providing some modest increases in yield per recruit. This offers substantial conservation benefits in the absence of any realistic reduction or limitation on fishing effort.

8. This consultation proposes to increase the MLS of lobsters as set out in The Undersized Lobsters Order 2000, from 87mm to 90mm CL, in order to provide additional protection for the spawning stocks. This will help to ensure the longer-term sustainable exploitation of the species.

9. This consultation document is a combined consultation paper and partial Regulatory Impact Assessment on which we are inviting your views.

1.3 Devolution

10. This proposal will apply to English vessels within British fishery limits, and to Scottish, Northern Irish and Welsh vessels when inside the English territorial sea and in relevant British Sea Fishery Limits.

2.0 Options

11. On the basis of the responses to previous consultations we are aware that the vast majority of those consulted support measures to conserve lobster stocks, but that the main disagreement has been over what measures should be taken. We have therefore not included the option of doing nothing, whereby the current minimum landing size of 87mm would stay the same.

Option 1 - Increase the minimum landing size to 90mm in one step.

Option 2 - Increase the minimum landing size to 90mm gradually e.g. by 1mm steps over the next 3 years.

Option 3 – Increase the minimum landing size to 90mm and also set a maximum landing size.

Option 4 - Increase the minimum landing size to 90mm and also increase the MLS beyond 90mm over future years.

3 Costs and Benefits

Option 1 - Increase the minimum landing size from 87- 90mm.

12. One of the biological merits of the option of an MLS increase is that it is likely to provide increases in yield per recruit (up to 6%) in addition to egg production (up to 50%). It should increase yield per recruit quickly (within a couple of years), providing fishing effort does not increase too much. However, an increase in fishing effort of around 40% could totally negate any benefits of increasing the MLS to 90mm. A prohibition on landing berried females would provide potentially higher increases in egg production, but would have an insignificant effect on yield-per-recruit.

13. Following an increase in MLS, there is likely to be an initial loss in landings as newly classified undersized lobsters have to be returned to the sea. Survival of discarded undersized lobsters is virtually 100%, and within two years they will have moulted and long-term benefits to yield-per-recruit will accrue. It is predicted that even with an increase in the MLS the lobsters would probably still be in the 'prime' size bracket after their first moult and there would therefore be little change in the overall size and price structure. The benefits of increased egg production per recruit will not be seen for some time as it takes four to seven years, following release of the larvae by the females, for the increased larvae production to filter through to a higher abundance of adult lobsters in the commercial fishery. As with all fisheries, whilst increased egg production will reduce the likelihood of any recruitment failure, there is no guarantee that increased egg and larvae production will necessarily lead to increased adult stock abundance.

14. The predicted short-term losses and long term gains for a 3mm increase in MLS, are set out in table 1.

(a) Initial loss in weight.

Increasing the MLS from 87 mm to 90 mm CL will incur an initial loss in weight of catch in the first year because lobsters in the size range 87 to 90 mm CL would have to be returned to the sea. The average loss in weight in each area is based on the average size distribution of lobsters caught currently in that area. Initial losses in weight are highest in the South Coast and East Anglia in comparison with other areas, because there is a smaller size range of lobsters in these areas and so a relatively higher proportion of the catch would have to be returned to the sea following an increase in MLS. The figures are based on current size distributions in the various areas, and have been expressed in weight rather than numbers, in order to reflect more closely the likely initial loss in value of landings.

(b) Initial loss in value of landings.

Based on the officially recorded landings data for 2004 and 2005, the initial loss in value of landings is calculated from the overall annual value of landings in the area and the proportion by weight that would have to be returned to the sea. The initial loss in value of landings would be highest in the South Coast fishery, but Northumberland, Yorkshire and Humberside would also incur relatively high costs, because the total annual value of the fishery is highest in these areas.

(c) Long term gains in weight.

From the biological point of view, the MLS increase will allow individual lobsters between 87 and 90 mm CL to moult and grow to a larger size, and the increase in weight following their subsequent capture will be greater than any loss of individuals through natural mortality. We would anticipate that any initial losses in catch would occur only in the first season after the increase in MLS. By the next year, most of the lobsters will have moulted and we would expect yield to be approximately the same as that before the increase in MLS was introduced. In the second year following the increase in MLS, and in all future years, there will be an annual increase in catch in weight.

(d) Long term gains in value.

The long term gains in weight can obviously be translated into an annual increase in value of landings, and these are calculated as before from the total value of recorded landings and the predicted long term gain in weight.

(e) Long term gains in egg production.

Increasing the MLS will generate an increase in egg production because not all female lobsters are mature at 87 mm CL, and so more lobsters will have a chance to breed for the first time. In addition, larger lobsters carry more eggs than smaller lobsters, and increasing the MLS will mean that the average size of lobster in the population will be higher. The predicted figures in table 1 are for the average increase in egg production per recruit, i.e. on average each female lobster recruiting to the stock will have a higher average egg production over its life-time prior to capture in the fishery.

All the figures given in the table are the estimated average short term losses and long term gains for all vessels in the area. There will be individual vessels in each area where the initial losses are less than or greater than the average value. For example, data from one vessel shows that approximately 40-50% of its catch could be between 87 and 90 mm CL, and that vessel, therefore, would incur significantly higher initial losses than the values given in the table. The long term gains in catch and egg production for that vessel would however be comparatively higher also.

Table 1 - Predicted short- and long-term impacts of 3 mm increase in lobster MLS in fishing areas in England

Area	Initial short-term losses in landings		Long-term gains		
	Weight ⁽¹⁾ %	Value ⁽²⁾ £	Weight %	Value ⁽³⁾ £	Eggs per recruit %
East Anglia	21	150,000	5.5	40,000	30
South Coast	27	590,000	6	110,000	56
Other (Northumberland & Durham, Yorkshire & Humberside)	15	480,000	3.5	115,000	22-25
Southwest	5	70,000	1	15,000	4
Total		1,300,000		280,000	

⁽¹⁾ Estimated initial loss in weight based on current average size distribution of landings in each area

⁽²⁾ Estimated losses of recorded landings based on 2004 and 2005

⁽³⁾ Average of estimated gains based on 2004 and 2005

15. The above table shows that in the short-term the 3 mm increase in national MLS may result in some overall financial loss to the industry of around £1.3 million, based on 2004/2005 figures. These estimated costs are based on officially recorded landings but there may be significant under-reporting in some areas. They are also based on the assumption that prices remain stable, which in general has been the case over the last ten years. The Southwest will incur relatively low average losses in revenue because there are Sea Fisheries Committee (SFC) byelaws in place already which set a MLS of 90 mm CL and thus only those vessels fishing outside the SFC limits will suffer additional losses in revenue.

16. The short-term losses from a 3 mm increase in MLS will be offset by increases in yield per recruit, which are modest (up to 6 %), but increases in egg production per recruit would be substantial, up to 50%, and these long term gains will continue year on year. There is therefore significant variation between areas in terms of initial losses and predicted gains, but those areas with the highest initial losses would obviously benefit most from higher long term gains.

17. In the long term, we expect the increase in catch in weight to translate into economic benefits for fishermen. In terms of quantifying the economic gains, the predicted increases in value of the landings are modest in comparison with the significant initial loss in catch but the initial loss was a one-off cost which is balanced by sustained annual benefits to the value of landings.

18. There will also be long-term benefits from increased egg production as a result of the proposal. After about four to seven years we expect an increased larvae production following the release of larvae by females to filter through to a higher stock abundance of adult lobsters in the commercial fishery. At the same time this will reduce the likelihood of any recruitment failure. We recognise there is no simple linear relationship between egg production and future recruitment, and therefore it is not possible to predict the increase in value to the fishery of this increase in egg production.

Enforcement

19. There are unlikely to be any major difficulties with enforcement of an increase in MLS. Given that SFCs already enforce an MLS of 87mm and some already have an increased MLS of 90mm, an increase would be unlikely to require any additional resources to ensure general compliance. In fact, the proposed national MLS of 90mm would be likely to aid enforcement for the SFCs as the 90mm MLS would now apply both inside and outside the SFC district.

20. It should be noted however that an MLS of 90mm CL would provide a greater incentive to land undersized lobsters, as there is clearly a market for the smaller lobsters. The introduction of escape gaps (designed to allow the release of a lobster below 90mm) could help to reduce the temptation of fishermen to land the newly-undersized lobsters.

Option 2 - Increase the MLS from 87mm to 90mm gradually

21. Under this option, the current MLS of 87 mm would be raised gradually over future years until an MLS of 90mm level is reached. In the longer term similar conservation benefits as those in option 1 would accrue, but they would be seen over a longer time period.

22. For increases in MLS to 88 or 89 mm CL, the figures for initial losses and long-term gains would be correspondingly lower in comparison with those of a single step increase to 90 mm CL. There would be some increased compliance costs in introducing incremental increases of 1mm, in comparison with a single increase to 90 mm, because fishermen would require new gauges for each individual increase. The cost of several gear modifications may be greater than the cost of increasing the MLS in one step. However, by increasing the MLS in this way the level of initial financial loss would be spread over more years.

Enforcement

23. There is a risk that there will be confusion about what is expected and when and this may result in increased non-compliances and therefore additional enforcement costs.

24. **Views are invited on what the possible incremental increase in the MLS could be** (e.g. 1mm every year for 3 years, 1mm in the first year and

2mm in the second year etc.). **It would also be helpful to have an estimate of the costs to you of implementing step changes over the two or three years in comparison with increasing the MLS in one step.**

Option 3 - Increase the minimum landing size to 90mm and also set a maximum landing size.

25. In addition to increasing the MLS via either option 1 or 2, it has been suggested that a maximum landing size should also be considered. We have received suggestions for a maximum landing size of between 120 and 145 mm CL or a weight of 2.5 kgs.

26. There would be increased compliance costs associated with setting a maximum size, as fishermen would effectively need two gauges. There would be benefits to long term egg production from an introduction of a maximum size limit, however some losses in overall catch would also occur as all large lobsters would have to be returned to the sea and would not become available for capture. We understand that the market for large lobsters is very limited and larger animals have poorer meat quality and therefore it is unlikely that a maximum landing size would have significant cost impacts.

27. The benefits of a maximum size are limited to areas where significant numbers of larger lobsters are caught, particularly in the offshore fishing areas. This is because in most inshore fishing areas, there are very few lobsters over 125 mm CL and hence returning these to the sea would have very little overall benefit to the stock. However there may well be knock-on benefits to recruitment in the inshore fisheries from increased egg production in offshore fisheries.

Enforcement

28. There do not appear to be any additional costs associated with enforcement as procedures to enforce an MLS are already in place.

Option 4 - Increase the 90mm MLS by further incremental steps over future years

29. From a biological perspective there would be benefits to increasing the MLS beyond 90 mm CL, but there may well be sound market reasons for not recommending such action. Further incremental increases to a 90mm MLS would incur further initial losses in catch for the fishermen, and as noted above may reduce the range of markets for the product as lobsters over 90mm CL are reaching the size at which a whole lobster is larger than the size demanded by the retail and catering trades.

30. **We would like to hear from you as to whether you would support an increase in MLS beyond 90mm, what any future MLS could be, and what effect this would have on fishermen and businesses.**

4 Impact on small businesses

31. Almost all fishing businesses in the UK are classified as small businesses. At this stage we don't know the impact of the proposals on individual businesses, however the impacts to some businesses in the first couple of years could be significant.

32. It is not expected that there will be any compliance costs, under any of the proposed options, to charities or voluntary organisations.

5 Other costs

33. Enforcement of this measure will be with the twelve Sea Fisheries Committees (SFC), which are responsible for managing fisheries around the coast of England out to 6 miles, and the Marine Fisheries Agency. As a minimum landing size for lobsters is already being enforced, it is unlikely that there will be additional costs for enforcement authorities. Enforcement costs in terms of inspections and information will be absorbed into existing resources costs.

6 Competition Assessment

34. In terms of standardising the MLS operated by all SFC's an increase in MLS would raise no issues of competition between fishermen in England. It could, however, give Scottish, Welsh and Northern Irish vessels a competitive advantage in that the MLS would not apply to them in their territorial waters and therefore they would not be affected by the initial costs of an increase in MLS could create. However, if they were fishing in English waters or outside their territorial seas they would be subject to the increase in MLS and would not gain any competitive advantage over English vessels. It is possible that some of the devolved administrations could also increase the MLS (we understand Wales is also intending to consult on measures).

35. Foreign vessels would not be affected by this national measure and would therefore still be subject to the EU MLS of 87mm. They could continue to fish for and land their catches of 87mm in English waters/England. If an MLS of 87mm was demanded by the market and fetched the highest price they could therefore have an advantage over English vessels catching lobsters at 90mm, but this possibility could be reduced through good communication in the supply chain and we estimate that lobsters at 90mm would still be classified in the 'prime size' bracket.

36. The regulation does not restrict the ability of firms to choose the price, quality, range or location of their products, nor will it lead to a differentiation in costs between new and existing fishermen. The regulation is unlikely to affect the market structure. No company has more than 10% share of the English market.

37. Currently, UK lobsters command a premium price over Canadian lobsters, and there is some evidence to suggest that there is still demand for high priced European lobsters. However a higher MLS, and hence higher price per whole lobster dinner, could make the market for UK lobsters more vulnerable to Canadian imports which have a smaller MLS and which are already at a lower price per weight than UK lobsters. **Views are invited on the likely market implications of increasing the MLS above 90 mm CL.**

7 Enforcement, sanctions, monitoring and review

37. Enforcement would be undertaken predominantly by British Sea Fisheries Officers operating under UK statute and by officers of the 12 Sea Fisheries Committees. Given that enforcement of MLS already occurs, an increase in the MLS would not need any additional resources to ensure general compliance. Their experience, together with monitoring work by CEFAS, and information from the coast, will provide information about the effectiveness of the measure.

8 YOUR VIEWS

38. We have set out what we perceive are the positives and negatives of each option and the best assessment currently possible for the impacts on businesses and on fish stocks.

39. We would like to hear your views on the four options set out. Please give reasons for your preferred option and provide practical examples, data or personal evidence where possible as this will help us understand better the impacts of the measures on individual businesses and the fishing community. It would be particularly helpful to have your comments on:

- Should the increase in MLS to 90mm be a single step or gradual? If the MLS was to be increased gradually, what do you suggest the increments should be?
- If a maximum landing size is also set, at what size should it be set?

If you would like to comment, please could you respond by **17th November** to:

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