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Llywodraeth Cymru  
Welsh Government

## Welsh Government Consultation Document

### Sustainable Management Measures for the Welsh Whelk Fishery

**Date of issue: 21 April 2017**

**Action required: Responses by 14 July 2017**

Mae'r ddogfen yma hefyd ar gael yn Gymraeg.  
This document is also available in Welsh.

<b>Overview</b>	<p>The Welsh whelk fishery is subject to increasing pressure. The only current management measure is an EU Minimum Conservation Reference size (MCRS) (previously referred to as minimum landing size) of 45mm. This is inadequate to protect the stock and to ensure the long term sustainability of the fishery.</p> <p>The purpose of this consultation is to seek industry views on a range of sustainable management measures for the whelk fishery. These measures will be incorporated into a sustainable management plan for the Welsh whelk fishery and will enable Welsh Government to achieve the goal of a long term sustainably managed fishery. The management plan aims to increase economic benefits and to safeguard jobs with the wider consideration of safeguarding the marine environment.</p>
<b>How to respond</b>	<p>Responses can be submitted by email, post or via an online form on the Welsh Government at <a href="http://www.gov.wales/consultations">www.gov.wales/consultations</a>.</p> <p>E-mail/postal responses should be sent to the address below to arrive by 14 July 2017 at the latest. Please insert 'Whelk consultation' in the e-mail subject box.</p> <p>By email : <a href="mailto:MarineAndFisheries@wales.gsi.gov.uk">MarineAndFisheries@wales.gsi.gov.uk</a></p>
<b>Further information and related documents</b>	<p><b>Large print, Braille and alternative language versions of this document are available on request.</b></p>
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**Data protection**      How the views and information you give us will be used.

Any response you send us will be seen in full by Welsh Government staff dealing with the issues which this consultation is about. It may also be seen by other Welsh Government staff to help them plan future consultations.

The Welsh Government intends to publish a summary of the responses to this document. We may also publish responses in full. Normally, the name and address (or part of the address) of the person or organisation who sent the response are published with the response. This helps to show that the consultation was carried out properly. If you do not want your name or address published, please tell us this in writing when you send your response. We will then blank them out.

Names or addresses we blank out might still get published later, though we do not think this would happen very often. The Freedom of Information Act 2000 and the Environmental Information Regulations 2004 allow the public to ask to see information held by many public bodies, including the Welsh Government. This includes information which has not been published. However, the law also allows us to withhold information in some circumstances. If anyone asks to see information we have withheld, we will have to decide whether to release it or not. If someone has asked for their name and address not to be published, that is an important fact we would take into account. However, there might sometimes be important reasons why we would have to reveal someone's name and address, even though they have asked for them not to be published. We would get in touch with the person and ask their views before we finally decided to reveal the information.

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**Note - Exit from the European Union:** On 23 June 2016, the EU referendum took place and the people of the United Kingdom voted to leave the European Union. Until exit negotiations are concluded, which begin once Article 50 has been triggered, the UK remains a full member of the European Union and all the rights and obligations of EU membership remain in force. During this period the Government will continue to negotiate, implement and apply EU legislation. The outcome of these negotiations will determine what arrangements apply in relation to EU legislation in future once the UK has left the EU.

## Background

Whelk fisheries are one of the largest fisheries in Wales, grossing £3.6 million in 2014. There has been growing national concern from managers, scientists and industry that whelk fisheries are being over exploited, and new evidence has identified that whelks around Wales are achieving reproductive maturity at a greater size (Haig, *et al* 2015)<sup>1</sup> than previously thought. In the UK, and more importantly in Wales, there is huge pressure on the whelk fishery due to demand in the Far East, and further expansion of vessels into the fishery (possibly caused by displacement of fishery efforts as other fishing opportunities decline).

In addition, the EU Marine Strategy Framework Directive requires all commercially exploited fisheries to be managed within safe biological limits (exhibiting a population age and size distribution that is indicative of a healthy stock) in order to achieve Good Environmental Status by 2020. The current lack of formal stock assessment and understanding of the status of whelk stocks in Wales is inconsistent with this policy.

The only current management measure in Wales is an EU wide minimum conservation reference size (MCRS) of 45mm, which is inadequate to protect the stock as a significant amount of whelks are being removed from the fishery before they have had the chance to reproduce (Haig, *et al* 2015)<sup>1</sup>. This can lead to recruitment overfishing. The intensification of harvesting pressure increases the need for revised management options aimed at stock sustainability.

In response to these concerns and a growing evidence base with respect to whelk biology and ecology, Welsh Government in conjunction with the Fisheries Management Board initiated a work stream to investigate management options for the fishery.

## Biology and Ecology

The common whelk *Buccinum undatum* is the most abundant gastropod mollusc inhabiting the North Atlantic (Kideys *et al.*, 1993)<sup>2</sup>. It is a large edible mollusc and a carnivorous predator. It can scavenge in water depths between 3-600m (Haig *et al.*, 2015)<sup>1</sup> and has very acute chemical sensory abilities enabling it to detect carrion within 111-585m<sup>2</sup> (Himmelman and Hamel, 1993)<sup>3</sup>. It is this ability which enables whelks to be commercially exploited in baited pots. Whelks have a k-selected life history, this is characterised by late stage maturation and low fecundity. Whelks are single sexed and reproduce by internal fertilisation. They encase their eggs in protective cases which are attached to the sea bottom. There is no free-living larval stage which limits dispersal to other grounds. All of these characteristics make them vulnerable to over exploitation.

Research has shown that that whelks begin to ripen their reproductive organs ready for spawning in the autumn, with October being the peak month for reproductively viable

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<sup>1</sup> Haig, J. A; *et al* 2015 The size at maturity for the common whelk, *Buccinum undatum* in Welsh waters, with an industry perspective on minimum landing sizes.

<sup>2</sup> Kideys, A. E., Nash, R.D.M. and Hartnoll, R.G. (1993) Reproductive cycle and energetic cost of reproduction of the neogastropod *Buccinum undatum* in the Irish Sea. *Journal of the Marine Biological Association of the United Kingdom* 73, 391-403.

<sup>3</sup> Himmelman, J.H. and Hamel, J.R. (1993) Diet, behaviour and reproduction of the whelk *Buccinum undatum* in the northern Gulf of St. Lawrence, eastern Canada. *Marine Biology* 430, 423-430.

whelks (Haig et al., 2015)<sup>1</sup>. Whelks have a protracted spawning season between October and December.

(Haig et al., 2015)<sup>1</sup> revealed that the size at which whelks are reaching sexual maturity, and therefore are able to breed, varies across Wales from 58mm - 76mm.

## **Fishing Effort and Current Management**

At present the only management tool in place to protect whelk stocks in Welsh Waters is the current European Minimum Conservation Reference Size (MCRS) of 45 mm shell length (this is provided for in Council Regulation (EC) No 850/98 of 30 March 1998 for the conservation of fishery resources through technical measures for the protection of juveniles or marine organisms).

Official statistics produced by the Marine Management Organisation (MMO) have indicated fluctuation in whelk landings of 10m and under vessels. These statistics are utilised to evaluate fishing effort and calculate landings. However, the number of fishers prosecuting the fishery between 2010 and 2015 has increased.

A standardised approach used by fisheries management to monitor the abundance of the target species is catch per unit effort (CPUE). With respect to the whelk fishery this will be the weight of whelks caught per pot. Changes in the CPUE can signify changes in stock levels.

In the absence of a long term data set (which makes it difficult to conduct an accurate stock assessment), CPUE can be used to set a baseline. If catch rates fall below this baseline they are considered unsustainable. There is currently limited CPUE data for the Welsh whelk fishery, however representative data is available from the 2015 Welsh Whelk fishery. Welsh Government undertook a pilot study in 2015 using 5 whelk vessels to collect a range of data. The preliminary results revealed that the median (mid – point) CPUE for the vessels appears to be just above 1kg / pot/ day soak, while the average is 0.82 (Rossiter, 2015)<sup>4</sup>. Factors such as weather did play a role in the CPUE and this data set will continue to be built upon. This CPUE level is considered low with respect to comparison with sustainable whelk fisheries, such as that in Jersey, France and Sweden where a 3kg per pot were considered a sustainable CPUE (Shrives et al., 2015)<sup>5</sup>, (Morel and Bossy, 2004)<sup>6</sup>.

As whelk populations come under increasing fishing pressure, there is a need for managers to ensure that effective management strategies are in place.

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<sup>4</sup> Rossiter (2015) Fully Documented Fisheries Pilot Project – Welsh whelk fishery. Report to Welsh Government

<sup>5</sup> Shrives J.P., Pickup S.E., Morel, G.M., Whelk (*Buccinum undatum L.*) stocks around the Island of Jersey, Channel Islands: Reassessment and implications for sustainable management

<sup>6</sup> Morel G.M., Bossy S.F. (2004) Assessment of the whelk (*Buccinum undatum L.*) population around the Island of Jersey, Channel Isles. Fish res. 68 (1-3) 283 -291

## **Stakeholder engagement**

Over the past 4 years, Welsh Government officials have been undertaking research, in collaboration with delivery partners and industry.

A Task & Finish Group comprising of industry representatives from North, Mid and South Wales, merchants and processors was established. The first meeting focused on listening to and recording member's views and concerns in order to gain a better understanding of the effects that different management measures could have on the respective areas.

The risks and issues associated with management measures were discussed and recommendations for management options were produced. These options were then presented to wider industry and stakeholders at three stakeholder events.

Three successful stakeholder Workshops were held in North, Mid and South Wales (10, 11 and 18 October 2016 respectively). All of the data and evidence that has been gathered was presented along with the potential management options for the whelk fishery. Industry representatives attended and put forward their views in relation to the sustainable management of the whelk fishery within Wales.

## **Options for a sustainable management plan**

The primary options for new management measures for the Welsh whelk fishery are split into four areas:

- Effort limitation
- Landing measures
- Technical measures
- Data collection

Once the consultation responses have been received, analysed and considered, the intention is that new legislation will be brought forward to implement the new proposed management measures for the Welsh whelk fishery.



### **Proposal 1 – A permit to fish for whelks in Welsh Waters**

The introduction of a permit system to enable vessels to fish for whelks in Welsh waters. The permit may include a range of conditions that can be adapted to ensure that the fishery is managed flexibly and with the best available scientific data and evidence.

### **Proposal 2 – A limit to the number of whelk pots a vessel can use**

Effort limitation by restricting the number of pots a vessel can use to fish for whelks in Welsh waters.

### **Proposal 3 – A cap on monthly landings of whelks**

Effort limitation by capping landings over a certain period, (e.g. the maximum tonnage of whelks that can be landed per vessel per month or per quarter).

### **Proposal 4 – Landing whelks in fish boxes or net sacks of no more than 40kg each**

All whelks to be landed in either fish boxes or net sacks where the total weight of either will be no more than 40kgs. It will be the responsibility for the permit holder to provide the fish boxes/sacks.

### **Proposal 5 – Increasing whelk minimum conservation reference size to 65mm**

The sexual maturity study of Welsh whelks has concluded that the current Minimum Conservation Reference Size (MCRS), of 45mm, is too small (Haig et al., 2015)<sup>1</sup>. Haig et al. (2015)<sup>1</sup> found the size at which whelks are reaching sexual maturity, and therefore are able to breed, varies across Wales from 58mm - 76mm. Due to regional differences in the size of whelk at point of maturity, the economic impact of an increase in the minimum landing size could have implications in different areas around Wales. Consequently, an increase to 65mm is being considered to protect a large proportion of the spawning stock and reduce the potential economic impact on fishers in some areas of Wales.

### **Proposal 6 – A closed season for whelk fishing**

Introduction of a closed season; (i.e. When the whelk fishery will be closed) to protect whelks while they are brooding, i.e. producing eggs; and while they are laying their eggs. The proposed closed season would be from mid-October to mid-December each year.

### **Proposal 7 – Regular submission of accurate catch returns and fishing effort information**

Mandatory catch returns detailing effort to be submitted on a monthly basis.

## **Summary**

The Welsh Government is consulting on a range of options for the Welsh whelk fishery that together will complement each other as part of a sustainable management for this fishery moving forward. These options include changes to fishing practices and requirements for data collection. Data collected by fishers (and the reference fleet) will be used to monitor the fishery and the management changes implemented, and in turn provide the parameters for even more efficient and sustainable future management of this fishery.

Proposal 1 – A permit to fish for whelks in Welsh waters

Proposal 2 – A limit to the number of whelk pots a vessel can use

Proposal 3 – A cap on monthly landings of whelks

Proposal 4 – Landing whelks in fish boxes or net sacks of no more than 40kg each

Proposal 5 – Increased whelk MCRS to 65mm

Proposal 6 – A closed season for whelk fishing

Proposal 7 – Regular submission of accurate catch returns and fishing effort information.