



The Northern Ireland Marine Task Force (NIMTF) is a coalition of non-government environmental organisations – it includes RSPB, Ulster Wildlife, Wildfowl and Wetlands Trust, WWF Northern Ireland, National Trust, Friends of the Earth, Irish Whale and Dolphin Group, and Northern Ireland Environment Link. The NIMTF has the support of approximately 100,000 local people. We are working towards healthy, productive and resilient seas for Northern Ireland.

**Northern Ireland Marine Task Force response to:
Intertidal hand gathering of shellfish in Northern Ireland: A call for evidence.**

Submitted: 30/08/2022

General Comments:

The NIMTF welcome the consultation on 'Intertidal hand-gathering of shellfish in Northern Ireland'. The majority of hand-gathering of shellfish from intertidal areas is unregulated but has the potential to significantly damage priority species, habitats, and marine protected area (MPA) features. Without adequate management of this activity, it is impossible to know its intensity and, therefore, the level of pressure important marine biodiversity and ecosystems are under from this activity. The swift introduction of effective measures to manage this activity is necessary for Northern Ireland to put nature and biodiversity on a path to recovery by 2030. A summary of NIMTF's recommendations are set out below, followed by comprehensive responses to the consultation questions.

The NIMTF supports the proposals for:

- a periwinkle gathering closed season from January to April.
- a minimum landing size of 16mm for periwinkles.
- a registration system for commercial harvesters and the completion of activity logs.
- a personal consumption bag limit.
- a Code of Practice for intertidal shellfish gathering.
- a night time curfew for gathering intertidal shellfish.

We are concerned about the effectiveness of these measures as they require sufficient engagement with the commercial intertidal shellfish gathering groups and the general public gathering for their own consumption. Significant resources will also be required for enforcement to ensure effective monitoring and compliance. Other devolved government agencies have acquired staff to oversee specific intertidal shellfish species management, such as Natural Resources Wales employing a cockle fisheries management officer (<http://www.cmscoms.com/?p=31208>). Similar roles could be developed to support capacity at DAERA for intertidal shellfish fishery management.

The NIMTF strongly recommend:

- a prohibition of hand gathering native oysters throughout NI's waters.
- a prohibition of commercial hand-gathering of all shellfish species outlined in this consultation (Cockles, periwinkles, native oysters and blue mussels) in Strangford Lough.
- the inclusion of native oyster and blue mussel as Strangford Lough MCZ features.

Do you collect/hand gather shellfish (Y/N). If yes:

No.

Do you know of others who hand-gather shellfish (Y/N). If yes:

Yes. NIMTF is aware of several occasions of shellfish being hand gathered around NI coastal waters. We have included all reports of intertidal shellfish harvesting reported to us in the table below.

Where	What species	What quantity	How often / When?	Sell?	Other info	Reported by
Strangford Lough	Native oyster and periwinkle	N/A	2002-2005	Yes	N/A	Reporter A
Strangford Lough (Horse Island)	Native oyster and periwinkle	estimated 1,500-2,000 native oysters and two sacks of periwinkles.	Witnessed on 3 separate occasions between December 2021 - March 2022. Regular and intense with at least four to five groups working the lower shore on spring tides.	Yes The commercial value of native oysters has increased significantly over the past five years with native oysters that previously cost 80 pence per shell in 2018 are now fetching >£3.00 per shell in 2021.	Described as industrial in nature with full mesh sacks of various shellfish species lined up along the low intertidal for removal by additional team members using refrigerated vans. Image available on page 9 of attached report.	Reporter A
Carlingford Lough (54°05'59.4"N 6°13'48.8"W)	Periwinkles	3 individuals harvesting with 2L buckets.	16 th of April 2022	N/A	Each individual had at least 3 buckets.	Reporter B
Ardglass (54°15'50.4"N 5°36'27.9"W)	N/A- At too much of a distance to confirm.	2 individuals with 4L buckets and a net.	27 th of April 2022	N/A	N/A	Reporter B
Cultra: in breach of section 42 of the Belfast Corporation Act, 1930	Periwinkles	2 individuals harvesting with buckets.	27 th of July 2022	N/A	N/A	Reporter C

North Down and Ards shores	Periwinkles	'Selling buckets' worth every day.'	N/A	Yes	N/A	Reporter D
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Do you support the proposal for a periwinkle gathering closed season from January to April?

Yes, we support the proposal as a closed season for periwinkle gathering from January to April would be the most effective management for protecting the spawning stock¹. The closed season must apply to commercial harvesting and gathering for personal consumption. To ensure long-term sustainability to periwinkle populations, we recommend an annual winkle survey is undertaken to assess any impacts on stocks from continued gathering. The effectiveness of this proposal in managing periwinkle stocks should be reviewed if harvesting is evidently contributing to species decline.

NIMTF do question the ability to monitor this proposal. Effective monitoring consumes significant staff time, and we fear the resources may not be available to provide this. It is imperative that DAERA ensure education on commercial hand gathering of intertidal shellfish is effective upon registration and compliance is vigilantly monitored. A non-compliance procedure for failing to comply with the above proposal should be outlined.

Do you support the proposal for a minimum landing size of 16mm for periwinkles?

Yes, we support the proposal for a minimum landing size of 16mm to allow winkles a minimum of one winter spawning². The closed season must apply to both commercial harvesting and gathering for personal consumption. To ensure long-term sustainability to periwinkle populations, we recommend an annual winkle survey is undertaken to assess any impacts on stocks from continued gathering. The effectiveness of this proposal in managing periwinkle stocks should be reviewed if harvesting is evidently contributing to species decline.

NIMTF do question the ability to monitor this specific proposal, as it will be challenging to monitor individual catches to ensure a minimum landing size of 16mm is being upheld. Effective monitoring consumes significant staff time, and we fear the resources may not be available to provide this. It is imperative that DAERA ensure education on commercial hand gathering of intertidal shellfish is effective upon registration and compliance is vigilantly monitored. A non-compliance procedure for failing to comply with the above proposal should be outlined.

Do you support the proposal for a registration system for commercial harvesters and the requirement to complete an activity log?

NIMTF support aspects of this proposal, as similar systems have worked successfully in other UK councils, such as Swale Borough Council in England³ which requires a permit and a registration document to commercially harvest shellfish.

¹ AFBI, 2022, *Strangford Lough Periwinkle Study*, version 1.4.

² AFBI, 2022, *Strangford Lough Periwinkle Study*, version 1.4.

³ <https://swale.gov.uk/bins-littering-and-the-environment/harvesting-shellfish-in-swale/apply-to-harvest-commercially#h2>

In order for these measures to be adequate in ensuring sustainable intertidal shellfish gathering we ask:

- Upon registration, detailed and clear information relating to individual shellfish species- quantity restrictions, closed areas, catch limits, closed seasons, minimum landing sizes and other proposals outlined in this consultation, are provided (and in a number of languages, as appropriate).
- A Code of Best Practice is distributed and acknowledged in writing by each individual.
- Alongside regular activity log submissions, individuals should require renewal on their registration annually, alongside an annual summary of harvesting activity to increase data and transparency on activity levels of intertidal shellfish gatherings within NI.
- If asked, all commercial intertidal shellfish harvesters must be able to provide appropriate registration documentation whilst undertaking harvesting activities on the shore.
- A non-compliance procedure for failing to register, or failing to comply with above measures, should be outlined.

However, NIMTF believes an increased awareness of harvesting data collected via a registration system and activity logs will not be sufficient to restrict overharvesting. As hand-gathering of intertidal shellfish activities in NI are currently unregulated, there is not enough data to assess the sustainability of this activity. Detailed management plans for each shellfish species that is locally harvested must be developed to ensure species are being gathered to sustainable levels.

We believe a registration system provides a rare opportunity to actively engage with commercial shellfish gatherers in NI. By regulating these activities, greater scope is provided to educate gatherers on the importance of sustainable practices in conserving and recovering local intertidal shellfish populations, whilst also building an appreciation for the cultural importance of these species.

As stated above, NIMTF strongly recommend a prohibition of hand gathering native oysters throughout NI's waters and a prohibition of hand gathering of all shellfish outlined in this consultation: cockles, periwinkles, native oysters (*Ostrea edulis*) and blue mussels (*Mytilus edulis*), in Strangford Lough. These restrictions must be clearly outlined during the registration process, with written acknowledgement from commercial gatherers.

Do you support the proposal for personal consumption bag limit? Please suggest what level this should be set at and why?

We support limits for personal consumption to a 4kg / 2 litres⁴ in one tide but question how this will be monitored and enforced as registration and activity logs have not been outlined as part of this proposal. It is critical that there is increased engagement with the public / awareness raising on the importance of sustainable intertidal shellfish gathering to encourage compliance with personal bag limits. We recommend infographics displayed at sites popular for recreational gathering, displaying information on personal consumption limits, best practice when gathering for shellfish, engaging infographics on the ecosystem services provided by shellfish and the impact of disturbance on marine wildlife.

Do you have evidence that would support the introduction of closed areas? Please provide detail.

⁴ AFBI, 2022, Strangford Lough Periwinkle Study, <https://www.daera-ni.gov.uk/sites/default/files/consultations/daera/Strangford%20Lough%20periwinkle%20study.PDF>

Introducing a closed area for gathering all intertidal shellfish species outlined in this consultation: cockles, periwinkles, native oysters (*Ostrea edulis*) and blue mussels (*Mytilus edulis*), that encompasses all of Strangford Lough will immediately remove the pressure on the designated features within the SAC, SPA, Ramsar and MCZ sites. As this is not currently a managed fishery, there is not enough data to assess the vulnerability of features to this activity, yet, the *Fisheries in European marine sites: Matrix* assessment undertaken by DAERA has found that intertidal harvesting has the potential to significantly damage site features, including our most valuable blue carbon habitats, saltmarshes, seagrass, native oysters, and blue mussels. Bird species are critical components of the biodiversity of Strangford Lough SPA, which legally obligates Northern Ireland to safeguard the birds and their habitats to maintain healthy populations. Shellfish are major prey items for many bird species, for example, oystercatcher and knot. Without current fishery management, it is impossible to ensure enough shellfish are reserved for the birds, and there is the additional pressure of disturbance when feeding or at nests at breeding sites. Furthermore, the harbour seal population in Strangford Lough is currently in unfavourable condition, and intertidal gathering may be causing a significant disturbance to seals, hampering recovery. NIMTF believe the precautionary principle must be applied by implementing a closed area encompassing all of Strangford Lough to mitigate the significant damage the hand-gathering of intertidal shellfish could cause within this MPA.

We do not believe closing small areas within Strangford Lough to shellfish gathering would be effective for protecting shellfish stock or biodiversity, especially for native oysters, as historically the intertidal shellfish gathering groups have been very mobile, moving to different sites as shellfish stocks were depleted. Please see Ulster Wildlife's report '*Ostrea edulis* the Native Oyster in Strangford Lough Northern Ireland 2021-2022' for more information.

Do you have evidence that would support the restriction or prohibition of hand gathering blue mussels in Strangford Lough? Please provide detail.

Blue mussels play a valued role in the marine environment, providing a range of important ecosystem services including water purification⁵ and carbon capture⁶. Mussel reefs also promote and maintain biodiversity. The complex 3D structure of a well-established mussel reef provide a hard surface for species to settle on and offer a nursery habitat for many small fish species, overall enhancing species richness at these sites⁷. Furthermore, blue mussel reefs are a key source of food for many species, including species found at Strangford Lough such as Oystercatcher and Knot. At Strangford Lough, winter assemblages of internationally important seabirds can reach 70,000⁸. As

⁵Lüskow., F., et al., 2018, *In Situ Filtration Rates of Blue Mussels (Mytilus edulis) Measured by an Open-Top Chamber Method*, https://www.researchgate.net/publication/327426912_In_Situ_Filtration_Rates_of_Blue_Mussels_Mytilus_edulis_Measured_by_an_Open-Top_Chamber_Method

⁶Jansen, H & Bogaart, L., 2020., *Perspective of Carbon sequestration by cultured and wild bivalve stocks in the Dutch coastal areas*, <https://edepot.wur.nl/537188>

⁷Sea, M., et al., 2022, *Enhancing multiple scales of seafloor biodiversity with mussel restoration*, <https://www.nature.com/articles/s41598-022-09132-w>

⁸ National Trust, *Strangford Lough Wintering Wildlife*, <https://www.nationaltrust.org.uk/strangford-lough/features/strangford-lough-winter-wildlife#:~:text=The%20mild%20winter%20climate%2C%20sheltered,migrate%20here%20from%20northern%20latitudes.>

blue mussels are more aggregated than other shellfish like oyster and cockles, healthy and abundant populations are essential to reduce competition for food amongst these large groups⁹.

Harvesting of blue mussels in Strangford Lough has potentially significantly damaging effects on the ecosystem services outlined above. Therefore, NIMTF believe the precautionary principle must be applied by implementing a prohibition of hand gathering blue mussels in Strangford Lough in order to mitigate the significant direct and indirect damage harvesting could cause.

Do you have evidence that would support the restriction or prohibition of hand gathering native oysters in Strangford Lough? Please provide detail.

Introducing a closed area that encompasses all of Strangford Lough will immediately remove the pressure on declining native oyster populations in the Lough. The native oyster is a Priority Species in the UK and Northern Ireland, requiring conservation action **to halt further declines and support population recovery**. It is also included in the OSPAR List of Threatened and/or Declining Species and Habitats for the North-East Atlantic, with an obligation to implement measures that will conserve and restore native oyster populations within Strangford Lough.

The native oyster populations in Strangford Lough are regarded as unique and of great significance for this species on a European scale, and the first documented live native oyster reef formations documented in modern days¹⁰ was from Newtownards Sailing Club.

The Ulster Wildlife 'Ostrea edulis the Native Oyster in Strangford Lough Northern Ireland 2021-2022' report provides strong evidence that the native oyster population in Strangford Lough has been, and is, currently impacted by intertidal shellfish gathering:

- Native oyster numbers with Strangford have greatly reduced from a total population of 814,000 oysters in 2004 to 146,000 in 2021.
- In 2021, the two most abundant native oyster settlements were recorded at Horse Island and Skart Rock. The particle tracking models for native oyster larvae over a spawning season show the settlements at these sites have the potential to populate the whole of Strangford Lough.
- Intensive harvesting during March and April of 2022 reduced the Horse Island site density from 4.41/m² to 0.02/m², losing the population and rendering brooding potential no longer relevant. The removal of oysters from the site was so comprehensive that it is unlikely that recovery will take place over the next 10 years¹¹.
- The northern and eastern sites once considered prolific are now in danger of becoming biologically extinct.
- The native oyster settlements at Ballyreagh experienced a similar total removal in 2005 and the site has yet to show any significant signs of recovery some 17 years after the event.

⁹ Goss-Custard, J., et al., 2002, *Seasonal changes in the response of Oystercatchers Haematopus ostralegus to human disturbance*, DOI:10.1034/j.1600-048X.2002.02925.x

¹⁰ Dr Smyth, D., 2022, *Ostrea edulis the "Native Oyster" in Strangford Lough Northern Ireland: Population Dynamics and Species Management Recommendations 2021-22*, p 5.

¹¹ *Ibd.*

There is potential for native oyster recovery in Strangford Lough, but only if intertidal harvesting is prohibited throughout the Lough:

- The Lough possess the two fundamental components required to rejuvenate a declining population: (1) favourable hydrodynamics and (2) sufficient quantities of natural shell material¹².
- With the prohibition of ongoing intertidal harvesting, and pro-active conservation action such as the establishment of broodstock sanctuaries (similar to UW's native oyster nursery in Bangor Marina) it is envisaged that the native oyster could successfully recover from its present situation and once again Strangford Lough could become one of the species strongholds within the UK and Europe.

With the loss of the native oyster populations in the Lough, we have also lost the associated ecosystem functions:

- The native oyster is recognised as a habitat-forming bivalve, forming intricate reef structures which increase in size and complexity over time if left undisturbed. **These oyster reefs provide food and habitat for many species and can serve as nursery grounds for numerous fish species**¹³.
- Oysters are also filter feeders, and a single native oyster filtering up to 140 litres of seawater per day. Their filtering activity can **improve water quality** on local scales whilst also increasing light penetration to the sediment, and **promote the recovery of valuable coastal marine plant species such as *Zostera marina***¹⁴.
- The filter feeding drawdown of sediments together with the stabilizing effect of the reef, can also result in **native oyster reefs acting as carbon sinks**. As the reef grows these particles and the associated carbon can become trapped. The shell material produced by the oyster contains carbon and may become buried and stored in the sediment, in some cases for thousands of years¹⁵.

As stated in previous answers, we do not believe closing small areas within Strangford Lough to intertidal shellfish gathering would be effective for protecting shellfish stock or biodiversity, especially for native oysters, as historically the shellfish gathering groups have been very mobile, moving to different sites as shellfish stocks were depleted. An immediate prohibition on collecting native oysters is vital for protecting the remnant populations.

In addition to immediately prohibiting native oyster harvesting in Strangford Lough, we support the recommendations outlined in UW's *Ostrea edulis* the Native Oyster in Strangford Lough Northern Ireland 2021-2022.

Immediate Protective Actions:

1. Translocation of vulnerable native oyster populations in Strangford Lough to safe havens.

¹² Dr Smyth, D., 2022, *Ostrea edulis* the "Native Oyster" in Strangford Lough Northern Ireland: Population Dynamics and Species Management Recommendations 2021-22, p 5.

¹³ Gosling E. (2003). *Bivalve molluscs: biology, ecology and culture*. Fishing News Books, Blackwell Science.

¹⁴ Dr Smyth, D., 2022, *Ostrea edulis* the "Native Oyster" in Strangford Lough Northern Ireland: Population Dynamics and Species Management Recommendations 2021-22, p 8.

¹⁵ *Ibd.*

2. Introduction of bylaws banning the gathering of all commercial shellfish species outlined in this consultation: cockles, periwinkles, native oysters (*Ostrea edulis*) and blue mussels (*Mytilus edulis*) in Strangford Lough.
3. Addition of Native oyster and blue mussel as Strangford Lough MPA features.
4. Introduction of bylaws to ban intertidal native oyster hand gathering throughout Northern Ireland. In light of NI's new policy context (i.e. The Leader's Pledge for Nature agreed actions to put nature and biodiversity on a path to recovery by 2030 & supports the UN's Decade for Ecosystem Restoration; the draft goals of The Convention on Biological Diversity; the UK's commitment to 'halt and reverse biodiversity loss by 2030' and the JNCC's Nature Positive 2030 report) it is imperative that the necessary legislation is implemented to protect a species that is categorised as one which should be conserved under NI, UK and EU conservation recommendations, and to ensure unregulated fishing does not undermine restoration efforts.
5. Installation of signage (dual language) warning that an offence is being committed in relation to said bylaw especially at areas where shellfish harvesters access sites.
6. Policing with Food Standards Agency involvement at regularly harvested sites, particularly on low spring tides.

Immediate conservation actions:

1. Establish a protected brood stock sanctuary that will supply larvae to suitable settlement sites using prevailing wind and hydrodynamic regimen. See UW's *Ostrea edulis* the Native Oyster in Strangford Lough Northern Ireland 2021-2022.
2. Establish long-term monitoring protocols for in-situ native oyster densities, spat settlement and biodiversity indices, suitable sites should include: Newtownards Sailing Club, Greyabbey, Horse Island, Skart Rock and Bird Island.

For long-term conservation actions please refer to the attached report, '*Ostrea edulis* the "Native Oyster" in Strangford Lough Northern Ireland: Population Dynamics and Species Management Recommendations.'

Do you support the proposal to reduce risk of environmental damage through a Code of Practice for intertidal shellfish gathering?

The NIMTF supports this proposal. Alongside outlining best practice, it is imperative that DAERA ensure intertidal shellfish gathers and the general public are engaged with the importance of sustainable shellfish gathering and the impacts of activities that may cause damage or disturbance to protected or sensitive species. A Code of Practice could be used as an educational tool, highlighting this information alongside general best practice. A non-compliance procedure should also be agreed on and outlined in detail within the code.

Consideration must be given to how this code will be made accessible to those gathering shellfish, both commercially and recreationally. NIMTF recommends that upon registering to harvest shellfish, acknowledgement of the code must be recorded and the code should be clearly displayed at access points most frequently used by both commercial and recreational harvesters. Translation into relevant languages is also essential.

Do you support the proposal for a night time curfew (hours of darkness) for gathering intertidal shellfish?

NIMTF supports a night time curfew on the gathering of intertidal shellfish. We question the feasibility of this proposal as it is challenging and at times dangerous for enforcement officers to monitor for compliance in the hours of darkness.

Clear contact channels should be provided for the public to report any unregulated intertidal shellfish harvesting that they are aware of.

Do you know of other examples of effective management of shellfish gathering? Please provide detail.

East Lothian Council

·Collecting bivalve shellfish from unapproved areas for commercial purposes and placing them on the market for retail sale is an offence under Regulation (EC) 853/2004.

·Aberlady Bay Local Nature Reserve and John Muir Country Park which includes Tynninghame Bay are protected by local bylaws. These bylaws make the killing, taking or disturbing of any living animal in these areas an offence.

·The Scottish Outdoor Access Code also stipulates that the collection of fauna for commercial purposes requires the prior permission of the landowner.

·East Lothian Council regularly carries out surveillance at locations when reports of commercial harvesting of shellfish are received. When performing food hygiene inspections at local businesses, the environmental health team will always seek to ascertain where food has come from. This includes checking that shellfish have full traceability documentation.

For more information:

https://www.eastlothian.gov.uk/homepage/10450/gathering_bivalve_shellfish

Southend-on-Sea City Council

· If shellfish are harvested from unclassified or prohibited beds or a batch of live shellfish is not accompanied by a valid registration document, food authorities are empowered to seize them and seek an order for their destruction through the Magistrates' Court. The shellfish gatherer will be liable to pay all reasonable expenses incurred by Southend-on-Sea City Council in the destruction and disposal of the seized shellfish.

· Further charges can also be brought against the shellfish gatherer. Any organised shellfish harvesting activities in Southend-on-Sea City must comply with the food hygiene regulations. Failure to comply with these regulations is a criminal offence and offenders on conviction are liable to an unlimited fine and/ or a 2-year imprisonment.

For more information: <https://www.southend.gov.uk/licences-permissions-trading-standards/food-safety/3>

Swale city council:

To harvest shellfish in Swale for commercial gain you need:

- a registration document from us to harvest shellfish in Swale, including mussels, oysters, cockles, clams and periwinkles

- to observe the Kent and Essex Inland Fisheries and Conservation Authority (KEIFCA) byelaws for [cockle fishing](#) and [minimum sizes](#) when you're harvesting.

To apply for a registration document to harvest shellfish, you'll need to email our Environment Health Administration at ehadmin@midkent.gov.uk. You'll need to include:

- the name of your business
- your businesses contact details

For more information: <https://swale.gov.uk/bins-littering-and-the-environment/harvesting-shellfish-in-swale>

Will any of the proposed measures have an economic impact on you or a particular sector of society? Please provide evidence.

N/A

Do you feel that any particular section of society would be negatively impacted by management of shellfish gathering? Please provide detail.

N/A

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