

SUMMARY REPORT TO:
NORTHERN IRELAND FISH PRODUCERS ORGANISATION (NIFPO)
Northern Ireland Brown Crab Strategy



Department of
**Agriculture and
Rural Development**

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AN ROINN

**Talmhaíochta agus
Forbartha Tuaithe**

MÁNNYSTRIE O

**Fairms an
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TEL.: 01590 610168
info@consult-poseidon.com

<http://www.consult-poseidon.com>

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Poseidon Aquatic Resource Management Ltd, Windrush, Warborne Lane, Portmore, Lymington,
Hampshire SO41 5RJ, UK
Tel: 01590 610168
Email: info@consult-poseidon.com
URL: <http://www.consult-poseidon.com>

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SUMMARY

Extensive consultation with those involved in the Northern Ireland crab fishery identified the need for improved management of brown crab and other inshore fisheries. The potential for more localised management is evident, but additional organisation and representation at a local level is required.

The following strategy is proposed to progress local management in parallel with a number of other components to improve the fishery (legislation, marketing & science), ensuring the sustainability of the crab resource in Northern Ireland and the potting fleet dependent on it.

Effective industry consultation remains a key component of the strategy going forward.

I. THE FISHERY

Northern Ireland's potting fleet landed around 1,000 tonnes of brown crab into NI ports in 2010 (figure I). This is an increase of 27% (by weight) on 2009 landings, but lower than the recent peak of 1,170 tonnes of brown crab landed into Northern Ireland in 2007. For velvet crab, after a significant increase across 2005-2006, landings have remained stable over the past four years at approximately 230 tonnes with a slight decrease in 2010. Lobster landings remained fairly consistent across 2006 to 2009 at around 60 tonnes, with an increase to 78 tonnes in 2010.

Figure I: Live weight landings (tonnes) of brown crab, velvet crab & lobster into Northern Irish ports from 2005 to 2010.



Source: DARD, 2011

Landings into Northern Ireland occur throughout the year, the targeted fishery is from June to December with peaks in September and October.

There are substantial landings of crab by UK vessels into the Republic of Ireland, some of which is caught in Northern Ireland's waters. Under the *Voisinage* agreement, Republic of Ireland vessels are also permitted to fish in Northern Ireland's inshore waters, landing their catch back in Republic of Ireland ports. This additional fishing effort is important to consider in the future management of crab in Northern Ireland's waters.

Crab caught by the larger Northern Irish vessels towards the North West is most likely from the north western stock, which is also subject to fishing by vessels from the Republic of Ireland and from Scotland. Crab landed from the north coast east of Inishowen could also belong to this north western stock.

There are indications that vessels catching crab on the Irish Sea coast are exploiting a separate, but so far unidentified and undefined stock, possibly with links into wider Irish Sea populations. Such crab may or may not show inshore-offshore migrations comparable to those observed further west. Further investigation into stock distribution is proposed as part of the strategy.

II. THE FLEET

The Northern Ireland fishing fleet remains focused at the three east coast fishing ports of Ardglass, Kilkeel, and Portavogie. However an increasingly significant proportion of the under 10 meter fleet also operates from numerous small harbours around the coast.

Between 1995 and 2010 the Northern Irish under 10m fleet grew by 22% as the number of over 10m vessels decreased by 34%.

Of the 214 under 10m registered vessels at 1st October 2010, 184 (86%) have a shellfish entitlement. This represents a large amount of latent capacity in the fleet.

The large increase in pot numbers in recent years results from more vessels entering the fishery with landings recorded at 37 landing points in 2009 compared to 26 in the previous year. The number of pots fished by NI vessels is estimated to total at least 17,500 (60% from the Co. Down ports, 28% on the North Coast and the remainder between Larne and Strangford Lough). There are also vessels based in the Republic of Ireland setting pots in NI waters. The entry of one large vessel into the fishery would substantially increase the fishing capacity.

Four geographically distinguishable potting areas are identified that could form the basis of more localised inshore management:

North coast – dominated by lobster, but with a significant crab fishery where the stock may be linked with the offshore crab resources to the North and West that are targeted by *vivier* crabbers.

North Down & Outer Ards – a mixed fishery with seasonal importance for both brown crab & velvet.

Strangford Lough – one of the key velvet crab areas with an important *Nephrops* pot fishery, but also significant lobster & brown crab.

South Down – this area has the largest number of crabbing vessels, which also target lobster.

The potting fleet operating in each area has characteristics in common, but also show some area-specific issues and therefore some differing management priorities.

III. KEY ISSUES

Consultation with stakeholders in Northern Ireland raised the following issues:

- **Effort** – on the increase, mainly due to more vessels entering the fishery;
- **Latent capacity** – with most under 10's holding a shellfish entitlement and many currently operating on seasonal basis, there is significant latent capacity in the fleet;
- **Unlicensed or hobby fishermen** – still identified as a problem in certain areas despite recent legislation;
- **Stock information** – very limited information on the fishery, particularly the resource dynamics;
- **Quality** – the landing of low quality crab (white/soft-shelled) continues;
- **Sizes** – the current MLS does not support market requirements;
- **Toeing** – the removal of claws at sea prevents confirmation of crab size and use of the remaining crab, which undermines management;
- **Gear conflict** – an issue between potters and mobile gears (scallopers & *Nephrops* trawlers), but also within the potting fleet, particularly with seasonal fishers;
- **Environmental designations** – concerns amongst fishermen that future management of designated sites will restrict operation or even prevent access all together;
- **Renewable energy** – proposals for large scale developments that would further restrict fishing operations; and
- **Links with other fisheries** – any management plan must recognise that brown crab is part of a mixed pot fishery that includes lobster, velvets, and closely associated with the buckie whelks, *Nephrops* and *Palaemon* pot fisheries.

IV. MARKETS

The small volume landed into Northern Ireland compared to the rest of the UK and the Republic of Ireland (the 1000t landed in NI in 2010 represents around 3% of total UK landings) inevitably means NI crab operators (both fishermen, processors and wholesalers) are 'price-takers' rather than 'price-setters'.

Brown crab from Northern Ireland can be broadly divided into two distinct markets;

- **Processed market** – the majority of crab landed from the Co. Down ports (accounting for 60% of total NI landings) and from south of Larne, including the Ards Peninsula & Strangford Lough (25% of landings) go to processors.
- **Vivier market** - crab from the North Coast (15% of NI landings) enters a *vivier* market which could be seen as an extension of the live lobster fishery.

Northern Ireland crab remains in a difficult market position as it is:

1. highly dependent on an export market;
2. logistically more remote than competing suppliers;

3. with a comparatively low volume of landings; and
4. no clear distinction of Northern Irish product in the market.

Skippers know the difference between good and poor quality crab, but processors are competing with each other to ensure boats land their catch to them and so they are accepting of and pay for poor quality crab causing some fishermen to continue to favour quantity over quality. Those trading in whole or live crab are less accepting of lower quality crab.

V. MANAGEMENT MEASURES

Based on industry consultation and assessment, **Table I** presents the management measures proposed for inclusion in the strategy and identifies whether these may be delivered through legislation or local management plans.

Delivery through local management plans allows the introduction of measures that may not be required in all areas, but as part of a local management plan would still endorsed by DARD.

Table I Proposed measures by type and implementation

Management measure		Sub-options	Change in legislation	Local management plan
a	Increase Minimum Landing Size to 140mm		✓	
b	Limit type of vessels permitted inshore	size of vessel	✓	
c	Limit on hobby fishermen (in addition to current legislation)		✓	
d	Ban landing of soft-shelled crab		✓	
e	Ban landing crab claws (above well-defined limits)		✓	
f	Ban on landing berried crab, velvets & lobster (unless v-notching)		✓	
g	Gear measures	ban on parlour pots		✓
h	Escapement	escape gap		✓
		biodegradable fastening		✓

It is recommended that a Northern Ireland Permit for potting vessels be established to cap capacity and address the latent capacity evident in the fleet. A potting permit would also enable measures that cannot be readily applied in legislation to be introduced as conditions of permit. If established on an area basis, a permit would also enable the application of more localised management measures.

VI. STRATEGY

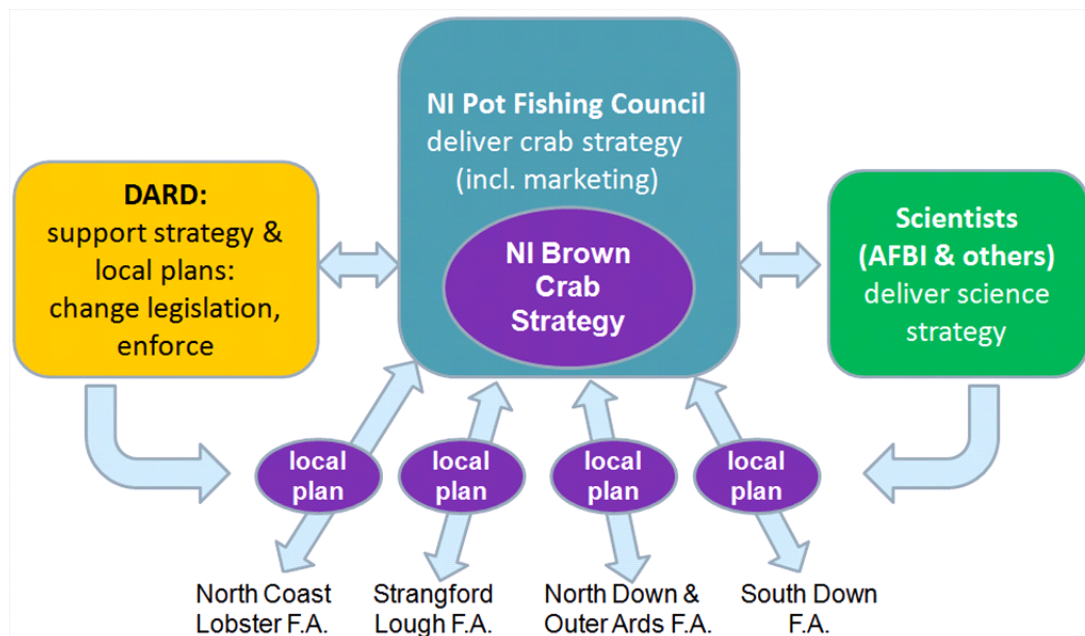
The improved management of the brown crab fishery (and Northern Ireland's other pot fisheries) should be delivered through a strategy containing the following components:

1. Changes to legislation;
2. Area-based local management plans;

3. A science strategy; and
4. A marketing strategy.

These components and their inter-relationships are illustrated in figure II below.

Figure II Components of the Northern Ireland Brown Crab Strategy



The delivery of the strategy should be overseen and steered by a suitable group, here named the Northern Ireland Pot Fishing Council (NIPFC). To maintain the fishing industry-led emphasis of the strategy, the NIPFC should include catching sector representation from each of the four potting areas as well as the involvement of responsible agencies (DARD); scientific support (AFBI); and links with the industry in the Republic of Ireland.

A representative of the post-harvest sector would be a welcome addition to the NI Pot Fishing Council. At present such representation does not exist and until such time that it does, the main linkage with post-harvest operators should be through the Seafood representative, who would perform a liaison and dissemination role for the Pot Fishing Council.

Changes to legislation

It is proposed that DARD produces new potting and crab legislation in Northern Ireland waters that collates, clarifies & strengthens existing legislation (particularly in relation to landing crab claws and the operations hobby fishermen) with the following additions:

1. Increase the Minimum Landing Size for brown crab to 140mm carapace width.
2. Ban the landing of soft-shelled crab based on an enforceable definition with measurable units (following a pilot study to define those units).
3. Ban the landing of berried brown crab, velvet crab and lobster (with the exception of landing berried lobster as part a recognised v-notching scheme).

4. Limit the size of vessel permitted to fish in Northern Ireland's waters to 12m and under (with a grandfathering clause to exempt existing operators).

It is recommended that DARD develops a Northern Ireland permit scheme for crab and other pot fisheries to better control potting effort and provide a framework for future area-based management. It is expected that a NI potting permit would be allocated to all vessels able to show evidence of operating in Northern Ireland waters, but with some provision for new entrants. To link with future local management, permits could be area-specific as per the four potting areas identified. Further consultation with the industry will be required to fully define the permit scheme.

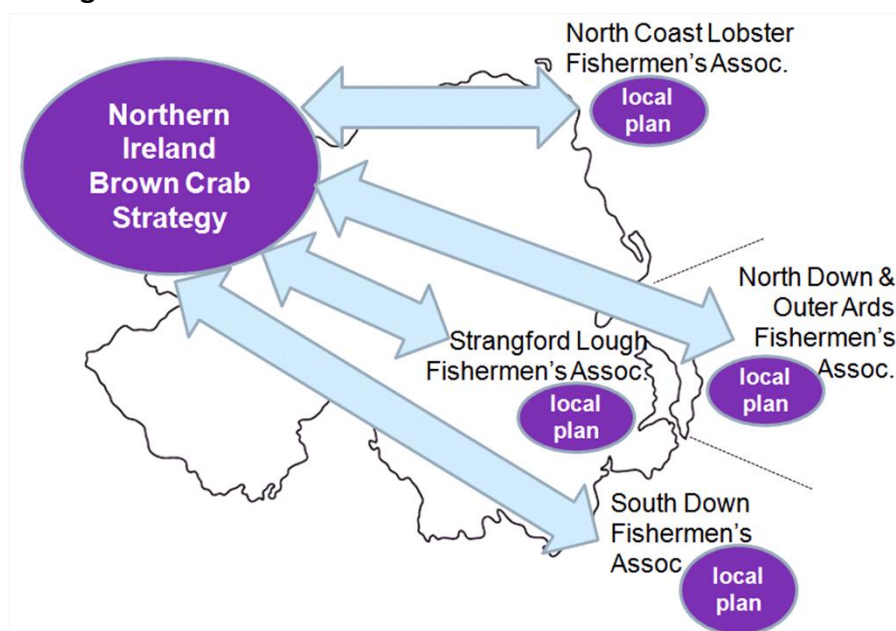
Area-based local management

The development of localised management is expected to be informed by this strategy and local management should in turn inform strategy delivery (figure III). Representatives from these area groups would be key members of the NI Pot Fishing Council, providing feedback on the effective delivery of the strategy and leading the development of localised management.

To aid the successful delivery of the strategy, develop local management plans and retain buy-in from all sections of the industry, regional inshore catching sector representation is needed for the North Down & Outer Ards area and in the South Down area.

It is recommended that DARD and Northern Ireland's Producer Organisations, being established industry organisations, encourage and assist these areas in forming industry associations, which can be supported via EFF funding.

Figure III Linkage between the Northern Ireland Brown Crab Strategy and Area-based management



Marketing strategy

The marketing strategy should:

1. **Focus on the catching sector:** to promote the positive actions of the industry and managers laid out in this strategy. This could be in the form of promotional material

and awareness-raising events. Buyers and processors can then incorporate elements of catching sector marketing on an individual basis as they see fit.

2. **Establish quality assurances:** this should be supported by legislation and the management efforts to ban the landing of soft-shelled / low quality crab (use of durometers, training for at sea grading).
3. **Highlight sustainable credentials** of the fishery: low impact, small scale, improved management.

With no obvious lead organisation to take the marketing strategy forward, this component should be delivered via a project that is overseen by NIPFC. The project should be eligible for EFF funding and is estimated to last 9-12 months starting in year 2 when new legislation is expected to be in place and with local management in development.

Science strategy

A six-year scientific strategy is proposed to support sustainable crab management in Northern Ireland with the following components:

1. Define fishing segments (strata)
2. Determine fishing effort per strata
3. Stratified biological sampling
4. Tagging and re-capture studies
5. Larval studies
6. Stock assessment
7. Provision of management advice

A fleet of volunteer sentinel vessels completing (ideally electronic) logbooks appears to be the most workable approach, rather than whole-fleet reporting.

The delivery of the above components is proposed via an integrated research project involving AFBI, DARD and the industry. This multi-stakeholder approach should make it eligible for EFF funding as a collective action.

The next step is for AFBI, DARD and industry representatives to develop a detailed research plan. This will identify where existing budgets and work streams could be adapted to incorporate the components of this strategy and contribute to match funding in an EFF funding bid.

Roadmap for the Strategy

Each strategy component has outputs to monitor progress and inform revision of the strategy if necessary (Figure IV).

Industry consultation will remain a key aspect of the strategy going forward. Initially this will be needed to further define certain management measures and to help lead partners in developing detailed project specifications. Once developed, project funding should be sought, i.e. via applications to the European Fisheries Fund (EFF).

Figure IV Roadmap for Strategy Implementation (★ = reviewable outputs)

Strategy Component	lead partner	duration	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Industry consultation	NIPFC	ongoing																								
Legislation																										
increase MLS	DARD	6 months				★																				
limit vessel size	DARD	6 months				★																				
pilot durometer project	AFBI/industry	6 months			★																					
ban berried & white crab	DARD	3 months				★																				
develop permit system	DARD/industry	12 months				★																				
implement permit system	DARD	ongoing																								
Local management plans																										
develop inshore representation	P.O.s	9 months																								
develop local plans	Associations	12 months								★																
implement local plan	Assoc/DARD	ongoing																								
review local plan	Associations	3 months																								
revise local plan	Associations	3 months																								
Marketing																										
Develop promotional material	NISC	3 months								★																
Implement marketing	NISC	6 months																								
Report on achievements	NISC	3 months												★												
Science																										
trial crab science projects	AFBI	1 year				★																				
distribution of fishing	AFBI	4 years																						★		
fishing effort recording	AFBI	4 years																						★		
stratified sampling assessment 1	AFBI	2 years													★											
stratified sampling assessment 2	AFBI	2 years																						★		
tagging programme	AFBI	2 years																								
recapture programme	AFBI	3 years																							★	
larval survey - north	AFBI	6 months																								
larval survey - north east	AFBI	6 months																							★	
stock assessment 1 & prelim advice	AFBI	6 months																								
stock assessment 2 & full advice	AFBI	6 months																							★	