

Joint NWWAC/NSAC/MAC Advice on Brown Crab

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1 Background

Brown crab (*Cancer pagurus*) is a long lived migratory crustacean species whose distribution range includes both inshore and offshore waters in the entire Atlantic area, from Spain throughout the Celtic Sea and North Sea to Norway. In 2019, total landings in the EU reached over 10,000 t (live weight) with a value of approx. €28 million. In addition, UK landings accounted for an additional approx. 31,000 t (live weight) at a value of over. €85 million. Lack of management measures and fishing effort analysis in the European Union and in the United Kingdom have led to unique stressors on the stocks along with many other possible causes of the crab stock decline yet to be identified. Member States involved in the exploitation of these stocks, mainly France, Ireland and the UK, have varying management measures in place to manage their respective fisheries. Challenges faced by the industry across these Member States led to the establishment of the ACRUNET project in 2010 ([link](#)), however, despite the valuable deliverables from the project, its primary aim of transnational management of brown crab fisheries was not attained.

In 2017, ICES established a Working Group on the Biology and Life History of Crabs (WGCRAB) ([link](#)) to work on data for important crab and lobster (*Homarus*) fisheries in the ICES area, Atlantic Canada and Greenland. Work continues in a new iteration of this group starting in 2023 to highlight “issues regarding the impact of climate change on key crab species, stock biology (reproduction, recruitment, growth, and distribution), fishery discards and landings, assessment methods, and ecosystem impact of invasive crab species” ([link](#)).

Following Brexit and with the establishment of the Specialised Committee on Fisheries under the Trade and Cooperation Agreement, the European Commission and the United Kingdom are working on harmonising their approach to managing non-quota species. In May 2022, the Scientific, Technical and Economic Committee for Fisheries (STECF) Expert Working Group on non-quota stocks ([link](#)) met to analyse a data call on the most important non-quota species regarding landings weight and effort distribution of catches, including brown crab. Its report includes information on brown crab fisheries in the North Sea, West of Scotland, Irish Sea and Celtic Sea ([link](#)) identifying limited data availability and the fact that no directed surveys are taking place. While landings in the North Sea have increased over the past years, they have decreased since 2016 in the West of Scotland, the Irish Sea, and the Celtic Sea. Brown crab is a targeted species in all four areas, and also a bycatch in the lobster fishery, in the static net fisheries in the North Sea and, to a limited extent, in bottom trawling, with no or only limited local recreational fishing occurring. In the West of Scotland, Irish Sea and Celtic Sea, crab is also being used for whelk bait. Threats have only been identified for the stock in the West of Scotland where the “Production Model indicates that current biomass is below Bmsy and fishing pressure (F)

above Fmsy,” though extra sources of mortality were not accounted for in the assessment model including the use of crab as bait in the whelk fishery. In addition, it was identified that poor quality crab was being landed. Despite the decrease in landings since 2016, fishing effort has increased, and there are no restrictions on new entrants into this fishery though no published data is available regarding this. ICES WGCRAb has also reported that recruitment has been declining in many areas in recent years (unpublished).

Since 2016, The North Western Waters Advisory Council (NWWAC), the North Sea Advisory Council (NSAC) and the Market Advisory Council (MAC) have continually addressed various aspects relating to brown crab fisheries management, supply chain issues and markets, starting with the NWWAC establishing a first Focus Group to address the unresolved issue of transnational management in 2016. Advice was published on data collection and assessment for brown crab in 2017 ([link](#)) and on brown crab management in 2020 ([link](#)). In 2019, the MAC adopted advice on the testing of cadmium levels in brown crab exported to the People’s Republic of China ([link](#)). Following the 2020 advice, the NWWAC, MAC and NSAC jointly established a Focus Group on Brown Crab which produced advice on production and marketing of Brown Crab in the EU in 2021 ([link](#)).

Issues identified in this advice relating to the sustainable management of brown crab fisheries in the North Western Waters and the North Sea as well as relating to the EU market and international trade remain unresolved. Therefore, a new joint Focus Group was established between the NWWAC, NSAC and MAC which began its work in October 2022 to specifically progress these issues.

Based on the information available, the joint NWWAC/NSAC/MAC Focus Group Brown Crab held a hybrid workshop on 16 May in Paris ([link](#)) with the participation of 41 industry and OIG representatives from 6 Member States (Denmark, France, Germany, Ireland, The Netherlands, Poland) as well as Norway and the United Kingdom in order to discuss management measures, impacts of offshore renewable energy (ORE) developments on brown crab fisheries, potential communication tools, specific socio-economic challenges for stakeholders in this fishery, and supply chain issues including potential guidelines for industry regarding exports to Asian countries. The following recommendations are based on the discussions and outcomes of this workshop.¹

2 Recommendations

2.1 Management

- To allow for best management, full stock assessments must be carried out across the remit areas of the NWWAC and NSAC. These should include evaluation of fishing effort (i.e., number of vessels, number of pots, seasonal or full year), and not only landings.
- The Advisory Councils strongly recommend that the minimum landing size is harmonised across all EU Member States and if possible, agreed with the UK via the Specialised Committee on Fisheries.

¹ Please note, at the time of the workshop the UK Fisheries Management Plan for crab and lobster in English waters had not been published. Since its publication in July 2023, members of the joint NWWAC/NSAC MAC Focus Group Brown Crab have been invited to provide individual responses to the public consultation ([link](#)).

- The ACs recommend a minimum landing size of 150mm carapace width in all fisheries with the exception of recognised local fisheries (e.g., Cromer Crab) which have a proven record of not exceeding a lower maximum size over many years.
- Landing of berried females, soft and moulting crabs should be prohibited in all fisheries.
- Landing of clawed crab should be prohibited in all fisheries with the exception of those described in [Regulation \(EU\) 2019/1241](#)
- Using crab as whelk bait should be restricted to fresh-frozen by-product from processing. No fresh crab should be used. Instead, the use of spider crab (*Maja*) and other specifically developed bait, for example from the RECCRU² project and other similar projects, should be implemented. In a recognised small-scale seasonal fishery for brown crab by vessels <12m, where whole crab is landed and claws removed, crab bodies can be returned to the vessel and used as bait by the operators.
- Seasonal closures should be explored both on a sea basin approach and from a gear-by-gear approach.
- The number of pots per boat should be limited.
- Use of parlour traps (casier à parloir) in the Channel should be prohibited for the catching of brown crab.
- The ACs welcome all sustainability initiatives for the industry, including Fisheries Improvement Projects and call on the Commission and Member States to encourage and support these initiatives.
- The ACs recommend that a joint effort be made in the North Sea to establish an overview of the current fishing effort with a stop to new entrants and/or increased effort. In order to stop the further deterioration and over-exploitation of crab populations, the ACs urge the Commission to direct Member States to prohibit any new entrants to join the fishery as well as to stop the increase in fishing effort via the existing fleet, until the stocks have been fully scientifically assessed.³
- All crab pots should include measures to prevent ghost fishing, for example biodegradable panels. Financial assistance should be provided with additional research into efficacy and viability carried out.

² RECCRU - Monitoring the recruitment of lobster, spiny lobster and brown crab <https://zabri.cnrs.fr/project/reccru/>

³ IIMRO has raised concerns regarding the prohibition on new entrants, citing legal and displacement issues and suggests that urgent steps are taken to establish a census of existing vessels and fishing effort before taking significant action such as this.

2.2 Impacts of offshore renewable energy (ORE) developments

- The ACs urge the Commission to direct Member States to apply the precautionary principle when approving ORE developments and associated surveys. Currently, Environmental Impact Assessments seem to conclude that any impact on brown crab stocks and other marine species is negligible, however, these conclusions are not based on scientific facts as very limited research has been carried out specifically in relation to the impacts of electromagnetic fields (EMF) on crustaceans.
- While some developments for ORE propose co-existence as part of their policy, in reality this does not seem to have been successfully implemented in any existing ORE installations. Research and additional development work is urgently needed to identify and officially recognise best conditions for coexistence to ensure that should fishing for crab be permitted in any developments, insurance costs are not prohibitive.
- Consultation with the fishing industry must be in place prior to designation of sites for new ORE developments to avoid further potential displacement.

2.3 Communication

- The ACs recommend that existing identification and handling guides for brown crab, for example as developed by the ACRUNET⁴ project, are used by the relevant Member States for education and training of fishermen and distributed widely to all vessels participating in the fishery.
- The ACs urge the Commission to support not only the crab fishery, but the fishing industry as a whole, by providing a positive narrative and communicating the benefits and achievements of sustainable fishing activities in Europe to the wider public. A concerted effort should be put in place between the Commission and the Member States to increase consumer confidence in European seafood products as well as to encourage recruitment into the industry.

2.4 Socio-economic challenges

- The ACs believe that fishermen should be compensated when faced with effort displacement due to spatial squeeze, specifically in relation to ORE developments. The ACs urge the Commission to establish a harmonised approach applicable in all Member States to ensure a just approach.
- Currently unqualified assumptions, such as the spillover effect, must be fully analysed and evaluated in order to identify if there are actually benefits to the fisheries displaced from these areas.

⁴ <https://www.acrunet.eu/acrunet-deliverables.html>

2.5 Supply chain

- The ACs strongly recommend the harmonisation of health certificates at European level as well as harmonisation of the relevant analyses, for example a harmonised testing protocol to provide Cadmium levels for the preparation of Health Certificates as required for Asian markets and Chinese markets in particular.
- The ACs would welcome detailed and harmonised guidance on the issue of heavy metals in crab tailored to the conditions in the export markets.
- The management measures proposed in the document should also apply in the supply chain and to onshore facilities where crab is handled, or processed and sold. Prevention and enforcement actions should include minimum landing size, landing of soft/moulting crab, targeted sale of non-by-product (viz non-fresh-frozen by-product) for whelk bait, clawed crab etc at onshore premises with a focus on traceability of catches.

2.6 Research

- Data is urgently needed on brown crab populations regarding size/sex/season at EU level. The ACs urge the Commission to make a special request to ICES and the Member States to prioritise research on this.
- Data gaps relating to landings compared to effort, number of boats and days at sea must be addressed. The ACs recommend that the Commission request Member States to add this to their data collection and would welcome the inclusion of data of brown crab by-catch and from recreational fisheries to establish if there is any potential impact.
- More research is needed on migration patterns especially of female crab as these remain poorly understood.
- Research is urgently needed on the impacts of EMF on the lifecycle and behaviour of brown crab.
- Research on the impacts of climate change effects on brown crab must be prioritised, for example the arrival of new predators such as octopus. In addition, the increase of parasites on both adult and juvenile crab and their possible effect on spawning and recruitment should be investigated. This research should also establish if there is a change to stock boundaries due to climate change effects, as well as changes to larval phases due to possible changes in ocean currents.
- The ACs call on the Commission to urgently request ICES to review all available data for brown crab stocks in the NWWAC and NSAC remit areas and identify data gaps.

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