Department
for Environment
Food & Rural Affairs

Managing flyseine vessel pressure on demersal Non-Quota Species

Proposals for introducing technical measures in English waters

Date: 25 August 2022

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Summary

The Fisheries White Paper, *Sustainable Fisheries for Future Generations,* 2018 sets out the UK's commitment to reshape fisheries management following our departure from the EU. Continuing to champion sustainable fishing and adopting management measures to rebuild and maintain stocks in the long term is central to future management.

Non-Quota Species (NQS) are stocks not subject to a Total Allowable Catch. They are often high value, potentially vulnerable and generally data poor species. The importance of NQS is recognised in the Government's draft Joint Fisheries Statement where we highlight our intention to manage NQS in future through effort limits, fisheries closures, and technical measures. The JFS also sets out our intention to prioritise the development of management approaches for NQS domestically, through Fisheries Management Plans. This is complemented by our commitments to develop 'multi-year strategies for the conservation and management of non-quota stocks' under the UK/EU Trade and Co-operation Agreement (TCA).

We have limited data on NQS, limited management and are therefore unable to accurately assess the health and sustainability levels of all NQS stocks that are targeted in English waters. The Fisheries Act sets out the precautionary objective in which the absence of sufficient scientific information is not used to justify postponing or failing to take management measures to conserve target species, associated or dependent species, non-target species or their environment. This consultation will assist in providing more data and also test the limited data (see Annex 1) we have so far.

We have heard significant concerns from the English inshore catching sector and NGOs over the last 18 months about the increasing efficiency of larger flyseine vessels and their impact on demersal NQS stocks. Flyseine vessels tow gear which touches the seabed; demersal fish inhabit the bottom of the sea. There are concerns in particular about the impact of these vessels on stocks such as red mullet, gurnard, and squid in the Channel and southern North Sea. We are seeking further evidence on the impact of current fishing activity on demersal species, including through the Channel Demersal NQS FMP process, but we are conscious of current pressures on the stocks and of not waiting to take action given concerns about the potential vulnerability of demersal NQS.

The proposals in this consultation relate to the impact of certain fishing vessel capacity in English waters. The proposals, in brief, focus on extending current measures (such as applying the 221kw restrictions for beam trawlers in the English 0-12nm to flyseine gear); and/or amending or reviewing existing restrictions (such as the 40mm mesh size derogation for directed squid fishery); and/or bringing in new measures (such as restricting fleet capacity or rope diameter and/or rope length for flyseine gear).

The expectation is that any new technical measures in English waters could come into effect during 2023.

Background

NQS are of significant economic value and the fisheries are of huge importance to local communities. In 2020, landings of NQS made up 19% (118,370 tonnes) of the total quantity of landings (623,000 tonnes) by the UK fleet and 28% (£233m) of the total value (£831m) into the UK and abroad[1].

However NQS, which includes all commercial shellfish apart from nephrops, are largely data poor, compared to quota species. Many of these NQS have radically different biology to most quota species, with a mix of very short-lived species (for example, cuttlefish and squid) as well as finfish. The level of management applied is variable, due primarily to the diverse nature and location of NQS fisheries.

We have concerns about the potential vulnerability of demersal non-quota finfish and squid. Flyseine activity in the Channel and southern North Sea is specifically targeted at non-quota finfish and squid, with non-quota stocks making up around 70% of the catch; though inshore fishermen also report concerns of impacts on quota stocks.

Flyseine fleet landings and vessel analysis

The Marine Management Organisation's (MMO's) *Summary of UK and EU flyseine activity in UK waters of the Channel and southern North Sea* at Annex 1 shows that demersal NQS finfish flyseine vessels landed 2,700 tonnes (£7 million) out of a total estimated 14,400 tonnes (£34 million) from the Channel and southern North Sea in 2020. Or put another way, 19% by tonnage and 20% by value of demersal NQS finfish landings. Flyseine fleet capacity has also increased over the last 12 years from around six vessels prior to 2018 to around 11 vessels in 2022[2].

The analysis shows that flyseine vessel activity is influential in specific areas for specific species. It is less important than demersal trawls and beam trawls for demersal NQS in the Channel and southern North Sea but is important for certain specific species such as red mullet (accounting for 82% of landings by tonnage and 79% by value in 2020).

It also shows that UK flyseine landings have almost doubled between 2019-2022 while EU landings appear stable, however the picture for EU landings is incomplete. Increases in 2021 are driven primarily by several quota and non-quota species - red mullet, whiting, tub gurnard, squid, pouting and mackerel are the main species relevant to the change. UK 2022 activity so far suggests flyseine landings in the area will at least be as high as 2021 by the end of this year. We also see that UK and EU flyseine vessels land mostly NQS, a

[1] UK Sea Fisheries Statistics 2020 (publishing.service.gov.uk)
[2] Taking into account replacement vessels in any given year.

proportion (UK - 68% by landing, 86% by value; EU – 67% by landing, 84% by value) that hasn't substantially changed over the last decade.

In terms of vessel numbers, the UK flyseine fleet is small in vessel numbers (11 vessels) but is made up of exclusively large, powerful vessels (>600kW). We cannot be certain on the EU fleet numbers, due in part to its gear codes criteria, but what information we have suggests the number of relevant vessels is at least 24.

There are, therefore, indications with the current increased activity in the Channel and southern North Sea that this could constitute a new fishery, relative to more traditional forms of flyseining effort.

Newer flyseining fleet

Since January 2021, parts of the English inshore fleet in the Channel and the southern North Sea have raised concerns about the reported increase in the capacity and use of flyseining gear on the sustainability of demersal NQS. MMO data as well as industry engagement confirm that these new larger flyseine vessels are targeting NQS such as red mullet and gurnards. Concerns have also been raised about the potential displacement of inshore vessels from limited waters, away from traditional fishing grounds within English inshore waters (0-12nm), by larger flyseine vessels, though it is the catching capacity impact that is the main focus of this consultation.

While flyseining is decades old, and previously considered a sustainable method, recent months have seen regular reports of the increased capacity of the newer vessels using this gear. Flyseining (also known as flyshooting or Scottish seining) is a fishing method involving long weighted ropes to herd fish into the mouth of the trawl before hauling the net to the vessel as it maintains its position under power. Flyseine vessels in the Channel and southern North Sea are purpose-built seine netting vessels and/or converted beam trawlers with higher engine powers and capacity when compared to traditional Scottish flyseine vessels.

Fishermen have highlighted that the newer flyseine vessels have up to double the gross tonnage, engine power, rope diameter, rope weight and vessel length (up to 40m) of traditional flyseine vessels. The fishing technique employed by these adapted seiners, requires far more power than the traditional Scottish seine netters they were based upon. This fast technique allows for more hauls per day, and larger areas to be covered.

Currently flyseine capacity in English waters is not restricted and vessels are free to diversify from other fishing methods to flyseine gear provided they have a valid fishing licence. Based on primary gear type, the UK flyseine fleet has increased from around six vessels prior to 2018 to around 11 vessels in 2022 and these vessels are generally 24-40m in length. Concerns have also been raised about an increase in EU flyseine activity in English waters (from 21 vessels in 2019 to 24 in 2022).

But these concerns are not unique to English Waters. On 12 July 2022 the European Parliament Fisheries Committee voted in favour of an amendment to the EU's Access

Regulation to ban Belgium and Netherlands fleets from demersal seining in French territorial waters (0-12nm). Next steps would usually mean debating this through the whole of the European Parliament before discussions with the European Commission and European Council. Commissioner Sinkevicius has also flagged the need to guarantee a level playing field and that any rules should be applicable to all fishermen and Member States. Last year the North Western Waters Advisory Council wrote to the EU Commission asking it to address the evidence gaps related to these newer and larger flyseine vessels, with a view to future management measures.

And, in April 2021 Producer Organisations in France, Belgium, the Netherlands and the UK recognised the need to tackle the impact of these larger flyseine vessels operating in the Channel and southern North Sea. They put in place a voluntary agreement to limit activity where there was increased fishing pressure from these larger flyseine vessels. The voluntary agreement sought to limit activity in Area 7d by fleet size, vessel length, rope size, fishing days allowed, and spatial management in Area 7d and outside the 12-mile line off the coast of Normandy. We understood the agreement set out the following terms:

- Maximum number of vessels allowed: France 28, Belgium 6, Netherlands 24, UK 17;
- Maximum rope length: 3,200 metres + 15% control margin;
- Maximum rope thickness and weight: 50mm and 2kg;
- Number of days at sea in ICES Area VIId to be a maximum of eight days at sea over two-week blocks;
- Minimum mesh size: 80mm;
- Belgian and Netherlands flyseine vessels to remain outside the nine-mile line from VIId and outside the 12 nautical mile line off the Normandy coast; and
- A review to take place by September 2021 and then no more than six months apart.

We understand the voluntary agreement, which would have been self-monitored, collapsed by July 2021. The agreement, while short-lived, demonstrated clear concerns about the operation of these larger flyseine vessels.

Fisheries Act 2020

The Fisheries Act 2020 sets out clear objectives to provide the basis against which the fisheries policy authorities of all four UK Administrations will manage their fisheries, including around NQS stocks. The Fisheries Act sets out the precautionary objective in which the absence of sufficient scientific information is not used to justify postponing or failing to take management measures to conserve target species, associated or dependent species, non-target species or their environment. This consultation acknowledges that while NQS are data poor, this is not a barrier to taking action where there are concerns about the sustainability of stocks, in particular the management of some demersal NQS. Part of the intent of the consultation is, additionally, to gather more evidence and to test the anecdotal data we have heard.

Fisheries Management Plans

We are working with industry to develop more robust management measures for NQS targeted alongside quota stocks. Through our commitment to FMPs in the Fisheries Act, we will reform and redefine our domestic fisheries management. Five of the front-runner FMPs (crab and lobster, whelk, scallop, bass and the Channel Demersal NQS) identified in the draft Joint Fisheries Statement (JFS) are focused primarily on NQS.

The Channel Demersal FMP will cover a number of the species targeted by larger flyseine vessels and will overlap with certain aspects of this consultation. We are also working with the EU on multi-year strategies for managing activity on NQS. However, in line with the 'precautionary objective' in the Fisheries Act and concerns from the inshore industry and environmental NGOs about the operation of these larger flyseine vessels, there is a case for exploring technical conservation measures to manage potential impacts on demersal NQS in English waters ahead of the introduction of wider management through co-ordinated but phased delivery of FMPs.

Purpose

This consultation is primarily concerned with gathering more data about the state of demersal NQS in English waters and the impact of flyseine effort on these, and exploring different technical measures to protect them, in particular from the possible risk posed by flyseine effort. The proposed measures could support effective management of NQS in the short-term and complement future work through Fisheries Management Plans. Our aim is to put in place a cohesive approach which:

1. Implements an appropriate level of protection for unmanaged, valuable but data poor demersal NQS; and

2. Addresses the reported impact of flyseining in English waters.

In discussions with different parts of the catching sector, regulators (the Marine Management Organisation (MMO) and Inshore Fisheries and Conservation Authorities (IFCAs), the Centre for Environment, Fisheries and Aquaculture Science (Cefas), Seafish and Devolved Administrations, we have identified the following measures to consider applying to vessels fishing with demersal seine gear in the English territorial (0-12nm) or Exclusive Economic Zone (EEZ) (0-200nm) waters as appropriate:

- Introducing an 'entitlement' (restricting the number of vessels and by extension effort) for flyseine gear in English waters; and/or
- Restricting engine power for demersal seine gears to 221kW or 600kW (for 0-12nm only); and/or
- Removing the derogation that allows a 40mm mesh size in a directed squid fishery (0-200nm); and/or
- Restricting vessels' rope diameter used in flyseine gear to 30-40mm (0-200nm); and/or
- Restricting vessels' rope length used in flyseine gear to 1500m (0-12nm) and/or 3000-3200m (12-200nm).

Rationale for proposals

We are considering the potential for introducing a new licence entitlement for flyseine vessel activity, which would be a requirement that vessels must have a specific permit if they wish to use this gear. We believe that this could enable us to manage the number of flyseine vessels operating in our waters more effectively. In doing so we would look to build upon lessons learned from scallop dredging and beam trawling entitlements. Any future technical measures could be included in the conditions attached to licence entitlements.

The UK currently runs a system of entitlements for vessels to fish for different species or using different gears. Examples of this include a scallop entitlement that is required for over 10m vessels using a mechanised dredge to fish for king scallops, bass permits and beam trawl entitlements. The purpose of these schemes is to restrict the amount of pressure on certain species, in particular by reducing the number of vessels using certain gears. A system of flyseine entitlements could have the same effect by ensuring that numbers or capacity of vessels would not increase by setting a ceiling to apply to all vessels using this type of gear. We could look to base any ceilings on proven track records, for example, average landings based on a three-year reference period up to 2019 when the data indicates landings and vessel numbers started to increase.

This consultation seeks to gather views to help develop our thinking on whether it would be beneficial to pursue this proposal and if so, how we do this. If the responses lead us to think that it is worth pursuing, we will seek further views on the details of how it would be implemented.

Restricting engine power of flyseine vessels with high engine powers in English territorial waters (0-12nm) could help manage effort on demersal NQS in inshore fishing grounds, for example protecting stocks in that zone and/or alleviating the squeezing of inshore vessels by larger ones into the English 0-12nm zone. These restrictions could align with the current 221kw beam trawl restriction, which was introduced as a precautionary measure to protect inshore fishing grounds against this powerful and highly efficient method of fishing. The other engine power option, 600kw (anecdotally the higher end of traditional flyseine power), may be a more proportionate way of restricting powerful flyseine vessels whilst still allowing smaller scale flyseine activity in the 0-12nm belt.

There could be a benefit to demersal NQS finfish by removing the derogation for all towed gears that currently allows the use of mesh size of at least 40mm in a directed squid fishery. We understand flyseine vessels sometimes use less than 80mm nets when squid is prevalent on the grounds, enabling a smaller mesh size to be used in demersal NQS fisheries. Catches when using a smaller mesh size are still highly mixed, which could lead to an increased catch of juvenile finfish – reducing that likelihood should, therefore, benefit those finfish species. Experience so far in the Celtic Sea, where the mesh size for demersal gear was increased to 100mm in September 2021, has shown that where larger mesh sizes are mandated there is likely to be a conservation benefit for all species.

Introducing new restrictions on the size of gear, such as rope diameter and length, could reduce the capacity of flyseine vessels and the quantity of demersal NQS that they are able to catch. These proposals are based on those included in the Producer Organisation voluntary agreement proposed last year.

We may not need to introduce all the measures together. We will consider what would be appropriate and effective in light of all of the evidence. For example, the proposal for entitlements may negate the need to consider the other proposed technical measures as this may alone manage the capacity of the flyseine fleet. Or a combination of the engine capacity and rope length/diameter may be sufficient to manage current and future catching capacity of the newer, larger flyseine vessels.

Other possible approaches

We have considered other approaches, such as a mesh size of 100mm for demersal trawl and seine gears in the English 0-200nm but understand this could impact sole and NQS fisheries disproportionately. Restrictions on how much those vessels can catch could be introduced, but would require significant scoping, for example determination of what a sustainable catch limit would be and how to allocate any new catch limits. We could consider industry to industry agreements, but the swift demise of the voluntary agreement in 2021 points to self-regulation being difficult to execute in practice.

We recognise that introducing new fisheries management measures could have unintended consequences, and/or the list of potential measures is not exhaustive, and we welcome views on the proposals as well as on other measures we could consider.

Review period

We propose to review the effectiveness of any measures if introduced, to ensure they are having the desired outcomes in managing the impact on demersal NQS in the Channel and southern North Sea in particular. Any review would need to take account of, amongst other things, the state of the target demersal NQS, the level of fishing activity, and any measures or objectives proposed in the Channel Demersal NQS FMP.

We would expect to gather more data about the state of NQS in the meantime so as to make measures more targeted over time, and the review would take account of the additional data gathered.

The expectation is that these measures would be incorporated into or overtaken by the Channel Demersal NQS FMP in due course.

Overall impact on business

The overwhelming majority of businesses in the UK catching sector are small or micro businesses[3]. However, within the fishing sector the measures will have a greater impact on larger vessels than smaller vessels; some of the proposed measures impose maximum restrictions, including maximum rope size and maximum engine size, which would impact only larger vessels.

The measures could impact up to 17 UK vessels (businesses), depending on which technical measures or combination of technical measures are introduced and bearing in mind that vessels are already free to diversify from other fishing methods to or from flyseine gear provided they have a valid fishing licence. This has an estimated cost to business of £0.21 million annually, and a minimum cost of £0, through reduced annual profits for fishermen who are no longer able to catch NQS species in the same manner due to the technical measures introduced. It is assumed that fishers will change their activity to continue fishing if the new measures (depending which ones) are introduced, for example changing fishing gear or fishing outside the 0-12nm if impacted by the engine size measures. The impacts are estimated to be ongoing as they will affect fishing activity for the lifetime of the measures. However, as fishermen adapt to the technical measures and adjust their activity the impact should decline over time. The key non-monetisable costs that could not be included in the estimations above are the effects of displacement and also the cost of the rope size technical measures.

Exact quantification of the impact of technical measures is unknown, particularly in reference to EU vessels. This consultation process is needed to help determine those impacts and which measures to introduce.

Questions

Please do use this consultation to share your views on our proposals, including if you believe we should be considering other courses of action we have not mentioned:

1. **What changes have you observed to demersal NQS stocks in English waters in recent times? Do you consider that any of these stocks are at risk of being overfished?**

2. **What changes have you observed in fishing patterns and methods in relation to demersal NQS stocks in English waters, in recent times?**

3. **What effects do you think any changes in fishing patterns and methods have had or will have on (a) demersal NQS; and (b) different sectors of industry (of any nationality).**

4. **Is there any other evidence/data available about these matters?**

[4] UK business: activity, size and location - Office for National Statistics (ons.gov.uk)

5. **What are the benefits and drawbacks (environmental, economic, social) of putting in place a licence entitlement system for flyseine gear in English waters? What might work for such a system (e.g., a link to engine power, or a track record period based on average landings)?**

6. **What are the benefits and drawbacks (environmental, economic, social) of introducing a restriction of engine power to (a) 221kW; or (b) 600kW for demersal seine gears in the English 0-12nm zone?**

7. **What are the benefits and drawbacks (environmental, economic, social) of removing the derogation of 40mm mesh size for a directed squid fishery in English waters?**

8. **What are the benefits and drawbacks (environmental, economic, social) of restricting vessels' rope diameter for demersal seines to 30mm-40mm in English waters?**

9. **What are the benefits and drawbacks (environmental, economic, social) of restricting rope lengths for demersal seines to 1500m in the English 0-12nm; and/or 3000m-3200m in the English 12-200m?**

10. **Are there other technical measures or variations of the proposals above we could consider to help manage pressures on demersal NQS stocks in the English 0-200nm?**

Definitions

Demersal - fish which inhabit the bottom of the sea.

Demersal trawl and seine gear – active gears (i.e., towed) which fish along or just above the seabed to catch demersal fish.

Demersal seine - uses two long seine ropes and a seine net deployed in a specific pattern encircling an area on the seabed. The two most common forms of seine netting used in UK waters are (a) *anchor seining (Danish seining)* and (b) *flyseining (Scottish seining or flyshooting)*. Anchor seining uses an anchored marker buoy from which the net is set out, whereas flyseining does not use an anchor and enables the vessel to move forward during hauling, covering larger areas and towing the gear faster over the seabed.

Flyseine vessels – generally, purpose-built seine netting vessels and/or converted beam trawlers with high engine powers.

Conclusion

Defra considers that increased flyseining activity may be having a negative impact on NQS in English waters. If the responses to this consultation confirm this, Defra will consider what measures should be taken to alleviate this in the light of the consultation responses.

We welcome your views and comments on the proposals and answers to the questions that follow. Please send responses online or in writing.

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Annex 1 MMO summary of UK and EU flyseine activity in UK waters of the Channel and southern North Sea

Introduction

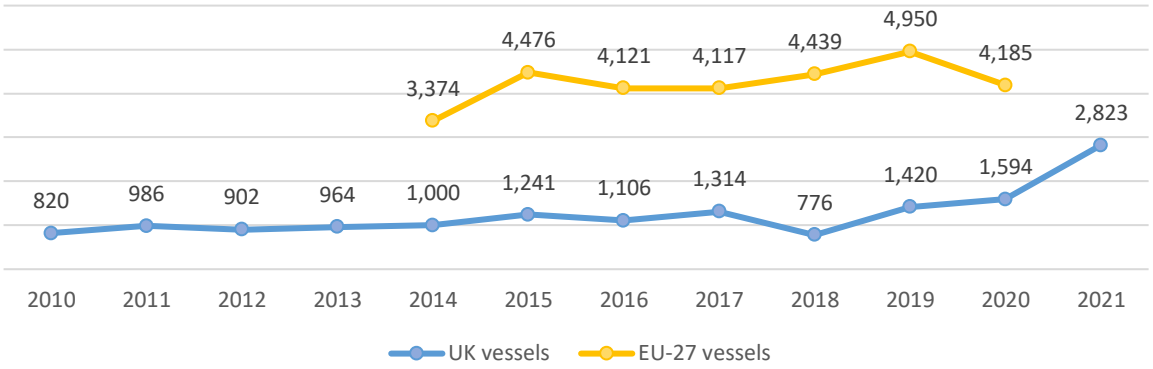
It is important to first put flyseine activity in context. In 2020 we estimate UK and EU-27 vessels landed a total of 1.25 million tonnes of fish from UK waters (estimated £1.2bn at first sale). The UK fleet landed 502,000 tonnes of this (£700mn). Of the 1.25 million tonnes we estimate 122,000 tonnes (£217mn) comes from the UK waters of the channel and Southern North Sea.

In 2020 UK and EU-27 flyseiners landings accounted for just 5% by tonnage and 6% by value of all UK and EU-27 landings from UK waters of 7de/4c. For demersal non-quota finfish species flyseiners landed 2,700 tonnes (£7mn) out of a total estimated 14,400 tonnes (£34mn) from UK waters of Areas 7de/4c in 2020. That is 19% by tonnage and 20% by value of demersal NQS finfish landings.

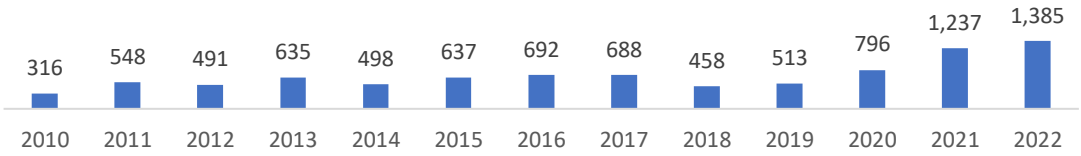
This makes flyseiners the third most important gear technique for demersal NQS finfish landings in this area after beam trawlers and demersal otter trawlers. However, there are two commercially important finfish species where flyseiners are of greater significance; red mullet (*Mullus barbatus* and *Mullus surmuletus*) where flyseiners accounted for 82% by tonnage and 79% by value of landings in this area and tub gurnard (*Chelidonichthys lucerne*) where flyseiners accounted for 53% by tonnage and 54% by value (2020). That year flyseiners also accounted for 15% by tonnage and 17% by value of squid and cuttlefish landings from the area.

Landings over time

Over the last decade UK flyseiners landings from UK waters of 7de/4c has been relatively stable, however, 2021 saw an almost doubling in tonnage from two years prior in 2019. The increase is seen in all assessed ICES division (7de/4c), but the Eastern Channel accounted for the largest increase seen. EU-27 flyseiners landings from the same area have generally been two to three times higher than that of UK vessels each year having remained relatively consistent between 2014 and 2020.

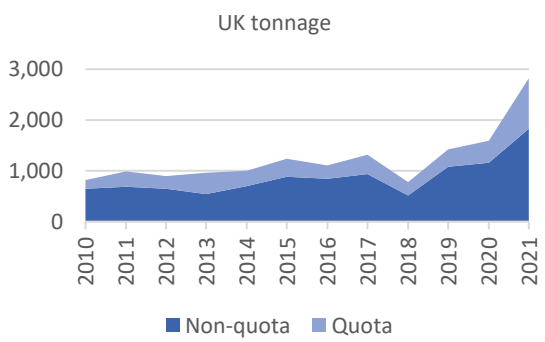


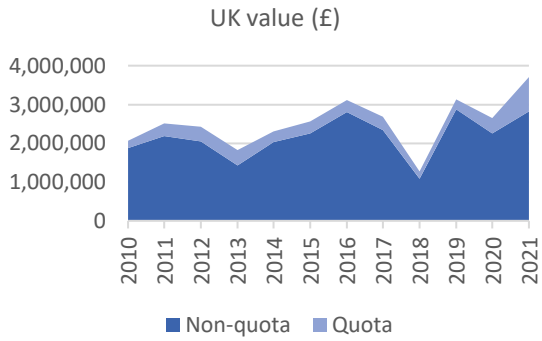
UK flyseiners landings in Areas 7de/4c of UK waters during the first half of 2022 suggest activity levels in 2022 are comparable to that seen in Q1/2 2021 and landings could be on track to be slightly higher.

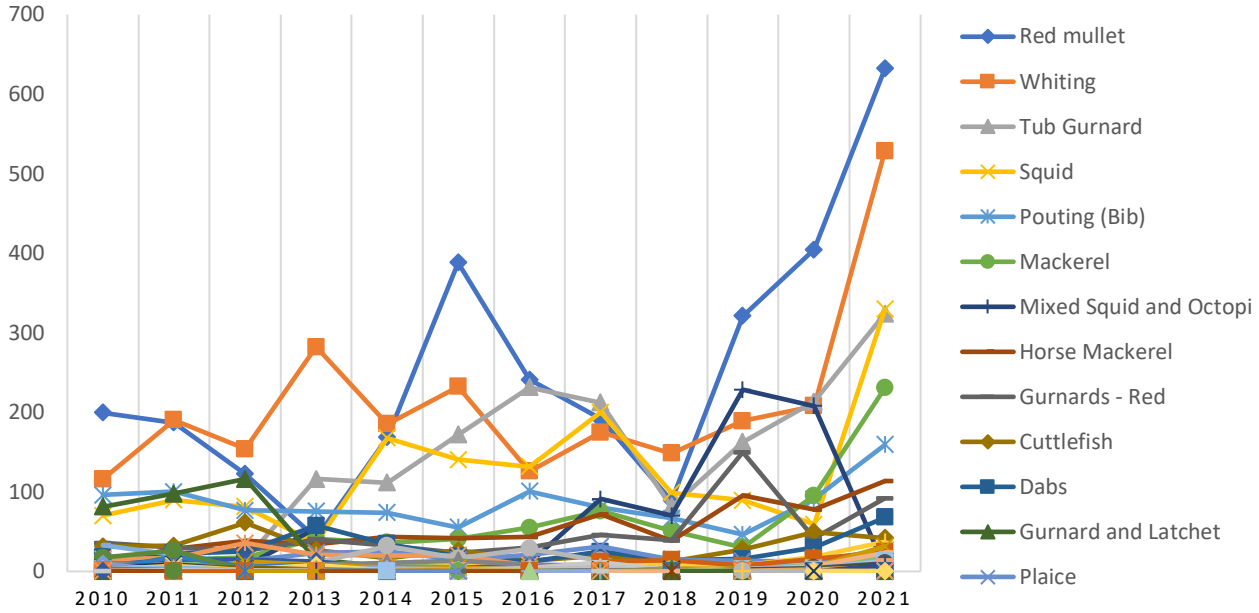


Targeting non-quota species

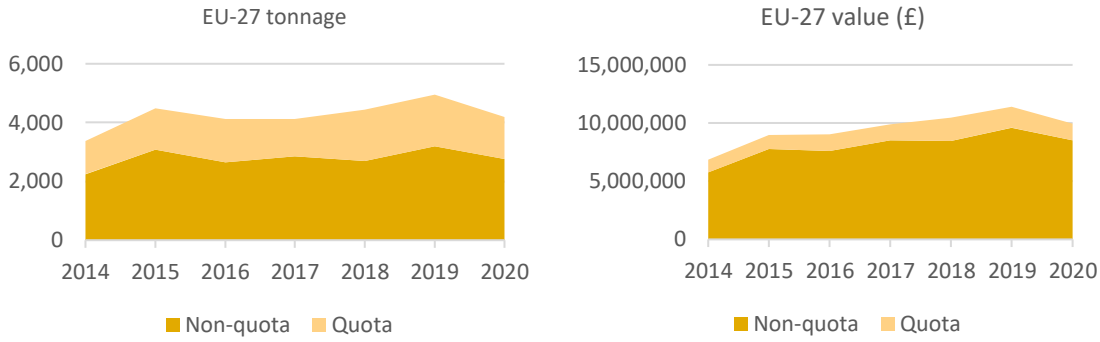
For UK seiners operating in UK waters of the Channel and southern North Sea between 2010 and 2021 non-quota species made up a substantial portion of both tonnage (68%) and landed value (86%). Tonnage increases seen in 2021 seem to be driven by increases in both non-quota species (namely surmullet/red mullet, tub gurnard, squid, and pouting) and quota species (namely whiting and mackerel).





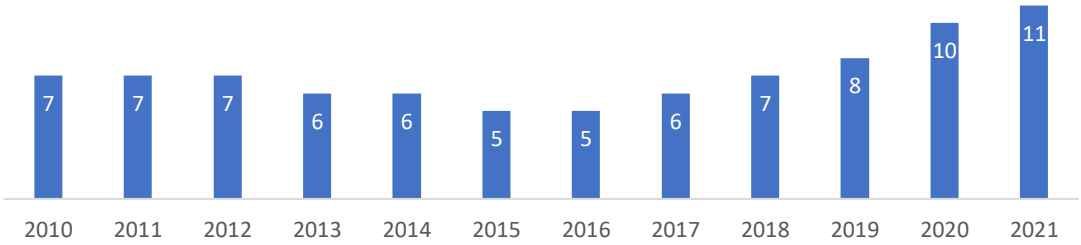


During the period 2014-20 in the same area EU-27 flyseiners vessels also predominately landed non-quota species (67% by tonnage, 84% by value). These proportions have remained consistent over time.

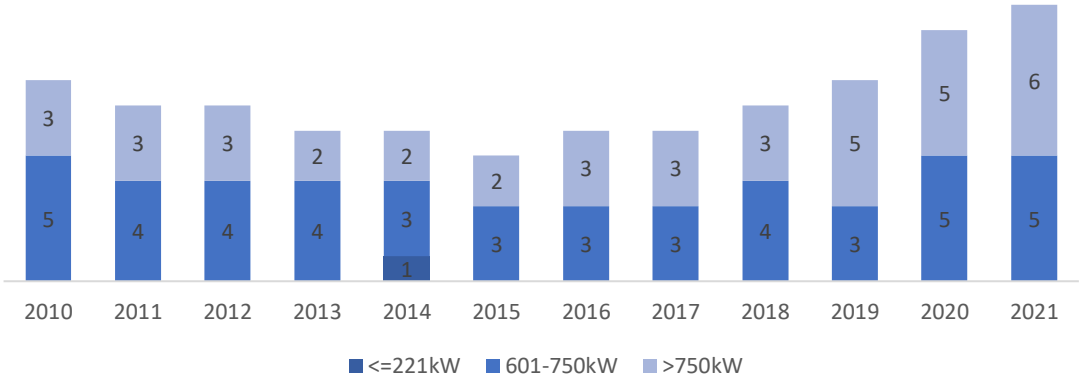


Fleet numbers

In terms of number of UK vessels involved in flyseining in UK waters of 7de/4c the numbers are small. Over the last decade 17 unique vessels reported fishing from these waters with either Scottish seine (SSC) or Danish seine (SDN) technique. In 2021 there were 11 vessels, an increase of 4 vessels from 2010. The vessels are generally 24-40m in length.



In terms of engine power, the UK flyseine fleet has been made up of >600kW vessels since at least 2010. As of 2021 there were both a greater portion and greater number of >750kW vessels in the UK 7de/4c flyseine fleet. This is a small fleet of large, powerful vessels.



For EU-27 flyseiners we have an incomplete view on activity historically. Using eLogbook data received via UK/EU data exchange we can see at least 24 EU-27 vessels have reported fishing in UK waters of 7de/4c with SSC/SDN gear in 2022. This is at least double the size of the UK fleet but still small in the context of several hundred demersal otter trawlers operating in the area. Note this exchange only includes France from mid-2021 onwards and does not include Germany or Denmark.

Member state	2019	2020	2021	2022
Belgium	3	3	3	3
France	UNK	UNK	2	4
Netherlands	18	20	19	17
EU-27 total	**21**	**23**	**24**	**24**

Data sources

- UK 2010-22 seiner data extracted from CEFAS ifish2 database by MMO SAT and estimates of landings from UK waters produced using ICES rectangle apportioning assumptions
- UK data also retrieved from UK sea fisheries annual statistics report 2020 - GOV.UK (www.gov.uk)
- EU-27 data sourced from STECF FDI21 data call and estimates of landings from UK waters produced using ICES rectangle apportioning assumptions Fisheries Dependent Information - European Commission (europa.eu)