

Preliminary environmental information report (PEIR)

Volume 2, Part 3, Appendix 3.24.A Commercial Fish
May 2025

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3.24.A. Supporting Commercial Fisheries Information

3.24.A.1 Introduction

- 3.24.A.1.1 This Appendix provides supporting information that has informed the preliminary Environmental Impact Assessment (EIA) presented in **Volume 1, Part 3, Chapter 24 Commercial Fisheries**. It is to be read in conjunction with the aforementioned chapter.
- 3.24.A.1.2 The study area for Commercial fisheries, as illustrated in **Volume 3, Part 3, Figure 24-1 Commercial Fisheries Study Area**, includes the draft Order Limits, which encompasses both the Eastern Green Link 3 (EGL 3) Project and Eastern Green Link 4 (EGL 4) Project, plus an additional 15 km buffer either side. The study area for commercial fisheries is also defined by the International Council for the Exploration of the Sea (ICES) rectangles in which the proposed English Offshore Scheme lies. Each Rectangle is approximately 30 nautical miles (NM) wide and is 30 min latitude and 1° longitude in size and is used to record and collate statistical fisheries data.
- 3.24.A.1.3 The study area lies within ICES Area IVc (Southern North Sea) IVb (Greater North Sea) and consists of the following nine ICES rectangles: 35F0, 36F0, 37F0, 38E9, 38F0, 39E9, 40E9, 40E8 and 41E9.
- 3.24.A.1.4 This Appendix gives an overview of the different types of local fishing methods and gear types which are used within the study area, also identifying the nationalities that typically use these methods.
- 3.24.A.1.5 The Appendix also includes the landings data for each of the individual ICES Rectangles within the study area. This includes the top 10 species caught by value and by weight and the different gear types used to make these catches.

3.24.A.2 Local fishing methods

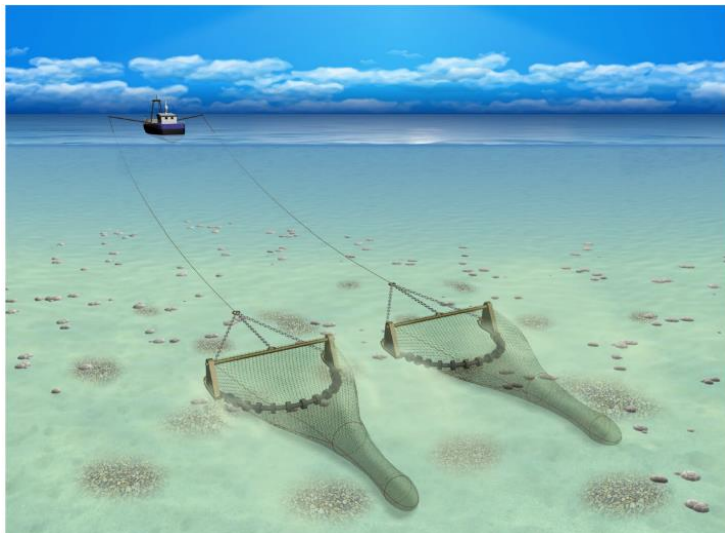
- 3.24.A.2.1 There are different fishing methods used with the study area. The following sections go into further detail about these different methods. It should be noted that this provides a high-level overview of the types of gear however not all gear types may be used.

Beam Trawl

- 3.24.A.2.2 A traditional beam trawler comprises of a steel beam held above the seabed by shoes at each end which is attached to a net. The beam is towed using chain bridles which are attached to the shoes. The gear is towed from outrigger booms either side of the vessel. Tickler chains disturb the fish on the seabed which make them rise up to be caught in the net. **Plate 3.24.A-1** is an example of beam trawling gear which illustrates the trailing nets vary in configuration depending on the target catch.

3.24.A.2.3 This type of gear typically penetrates into the seabed to between 25 to 50 mm. This method of fishing is vulnerable to areas of seabed with large obstructions such as cable crossings. Within the study area, beam trawling is used by UK and Dutch Fishers, primarily beyond the 12 NM limit.

Plate 3.24.A-1: Example of beam trawling gear



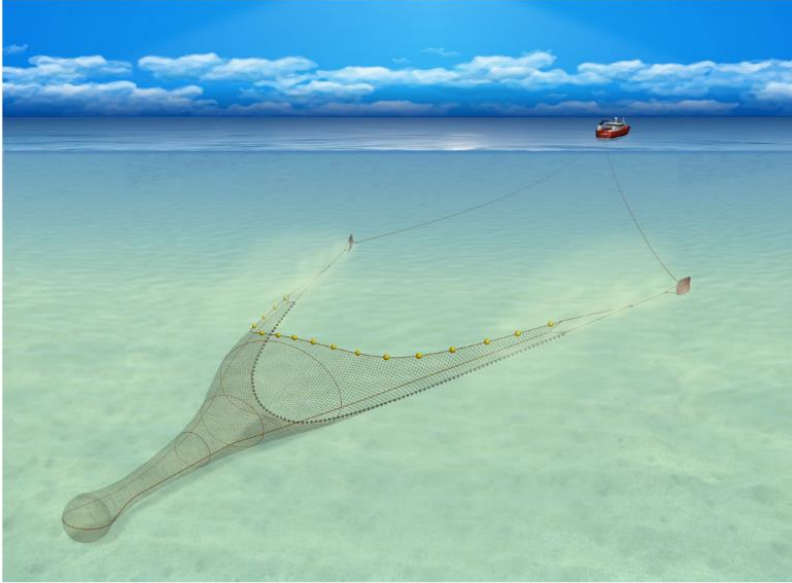
Source: SeaFish, (2022) (REF 3.24.A.1)

Demersal trawl

3.24.A.2.4 Demersal trawl consists of a funnel shaped net which is towed over the seabed. The horizontal opening of the net is held open by a mix of hydrodynamic and ground shear forces acting on the trawl doors. The vertical opening of the net is sustained by a series of floats situated along the net headline. The base of the net is kept on the seabed by a weighted ground line. If fishing over rough ground, it can be fitted with rubber disks known as "*rock hoppers*". The effective gear width of demersal otter trawls can range between 25 m for smaller vessels and up to 65 m for larger vessels. The towing speeds are dependent on the weather, tidal state and seabed conditions but can be between 2.5 and 3.5 knots. **Plate 3.24.A-2** is an example of demersal trawl gear.

3.24.A.2.5 As with the beam trawling gear the demersal trawling nets vary in configuration depending on the target catch. It is sensitive to areas of seabed with large obstructions such as cable crossings. Demersal trawling is used by English and Scottish fishers within the study area and primarily supports a nephrops fishery which utilises single and twin-rigged demersal 'otter' trawls.

Plate 3.24.A-2: Example of demersal trawl gear



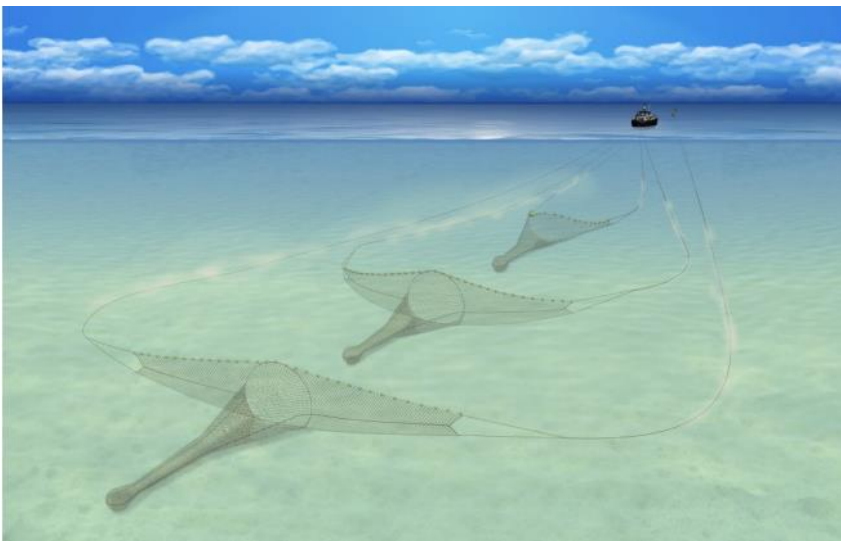
Source: SeaFish, (2022) (REF 3.24.A.1)

Seine Nets

3.24.A.2.6 The main principle of a seine net is that long lengths of ropes are laid on the seabed in a circular shape with the net halfway round the circumference of the circle. The ropes are then slowly closed, and as they move over the seabed, they herd demersal fish into the net. There are three main types of seine nets; beach seine, anchor seine and Scottish seine, though there is no evidence of use of beach seine within the study area.

3.24.A.2.7 Scottish seine is a very skillful activity requiring extensive knowledge in locating fish within the grounds, accurate rigging of the gear, and consideration of tidal streams in relation to the gear throughout the shooting, towing and hauling operation. **Plate 3.24.A-3** is an example of Scottish seine gear. Seine gear is used by vessels from the UK, and Netherlands within the study area.

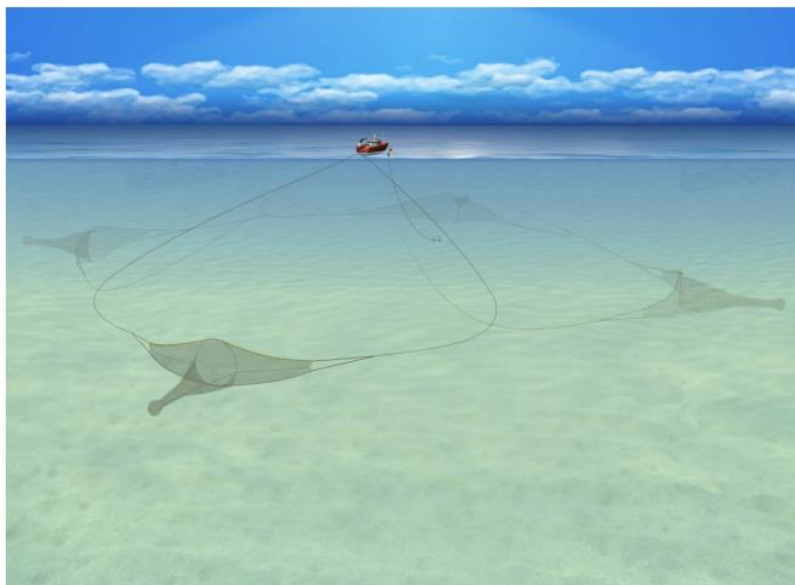
Plate 3.24.A-3: Example of Scottish seine gear



Source: SeaFish, (2022) (Ref 3.24.A.1)

3.24.A.2.8 Anchor seine is handled in a similar way to Scottish seine, the main difference being that when the dhan (buoy) is shot away the vessel also drops a large anchor to which the dhan is attached. They will shoot the ropes and net as in Scottish seine, but when the boat returns to the dhan, the crew pick up the other end of the seine net ropes and lead them to the winch, but they will also moor the boat to the anchor. **Plate 3.24.A-4** is an example of anchor seine gear.

Plate 3.24.A-4: Example of anchor seine gear

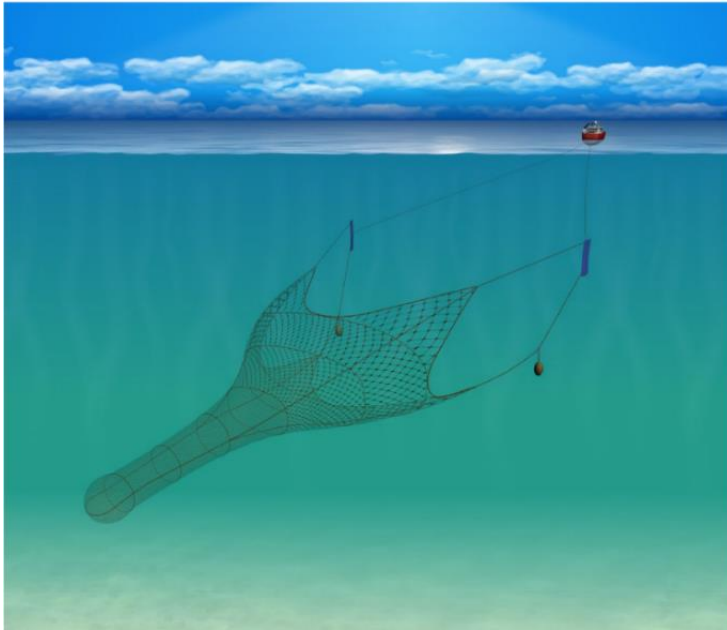


Source: SeaFish, (2022) (REF 3.24.A.1)

Pelagic trawl

3.24.A.2.9 Pelagic trawl gear is used to catch species such as horse mackerel (*Trachurus trachurus*), herring (*Clupea harengus*), mackerel (*Scomber scombrus*) and sprat (*Sprattus sprattus*). It is similar to those used for demersal species, but the nets are placed higher in the water column and therefore there is no penetration of the seabed with this method. This gear is illustrated in **Plate 3.24.A-5**- Example of pelagic trawl gear. Pelagic trawling is used by Netherlands fishers around the study area. Activity for this gear type tends to be in offshore waters of rectangles 38F0 and 40E9.

Plate 3.24.A-5: Example of pelagic trawl gear



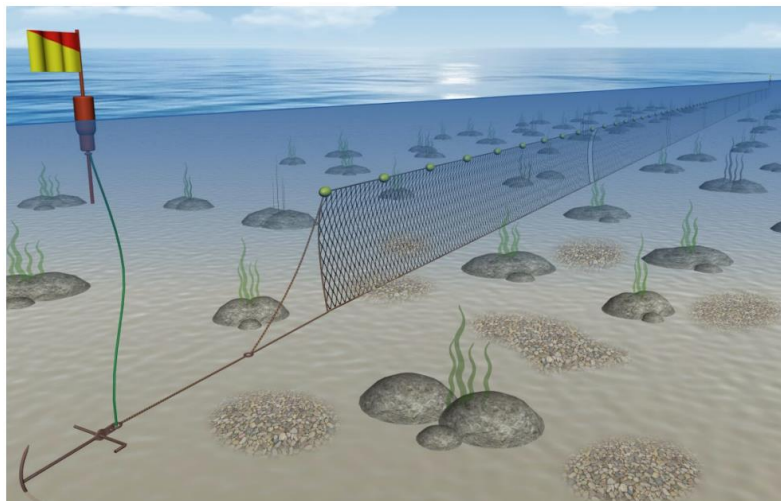
Source: SeaFish, (2022) (REF 3.24.A.1)

Netting

3.24.A.2.10 Three types of netting gear may be used within the study area, these may include: bottom drift netting, surface drift netting and static netting. The bottom drift net is suspended in the water with light contact with the seabed. The nets are approximately 100 m in length, 6 of which are in one fleet. Vessels tend to work between 4 or 6 fleets. The nets are not fixed and therefore are moved by the tide. Surface drift nets are a smaller net in length and do not interact with the seabed, fleets are between 6 and 10 nets. The surface gear is driven by the tide and is used to target pelagic species. Examples of bottom and surface fixed nets are illustrated in **Plate 3.24.A-6** and **Plate 3.24.A-7**.

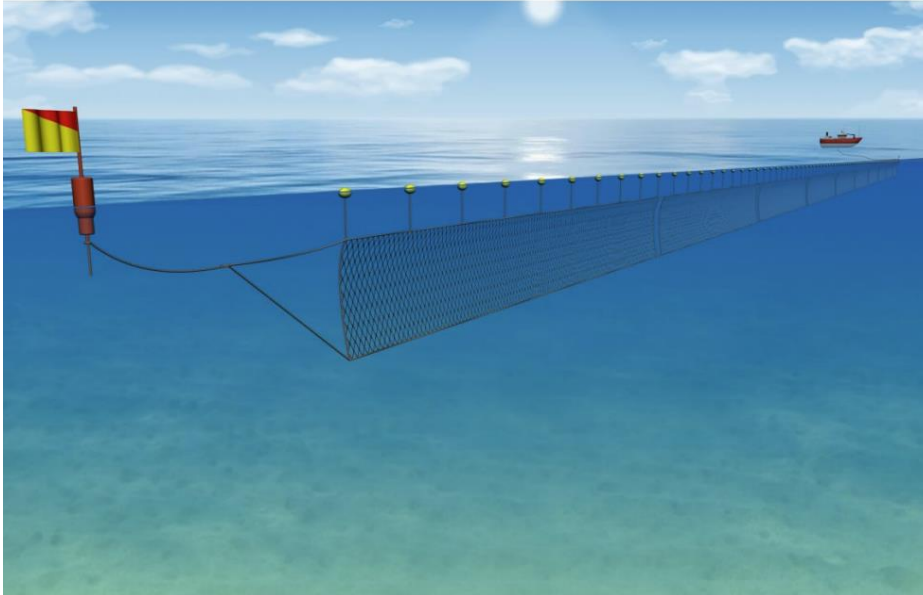
3.24.A.2.11 Static netting is similar to the bottom drift net but with the fleets anchored at the ends. The anchors penetrate the seabed by between 75 and 100 mm with the nets themselves penetrating.

Plate 3.24.A-6: Example of bottom fixed net gear



Source: SeaFish, (2022) (Ref 3.24.A.1)

Plate 3.24.A-7: Example of surface fixed net gear



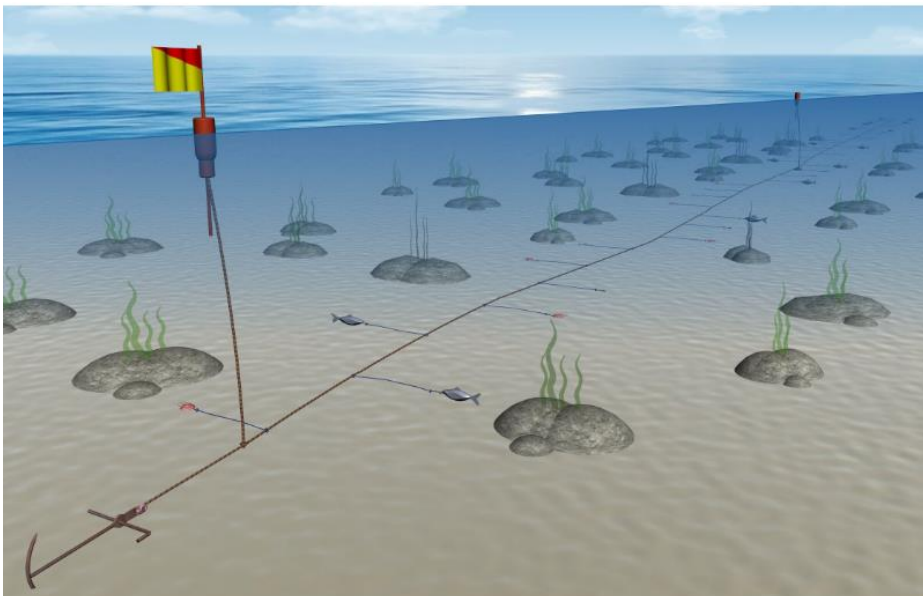
Source: SeaFish, (2022) (Ref 3.24.A.1)

Longlining

3.24.A.2.12 Longlining can be used to target both demersal and pelagic fish species with lines being rigged and set in position within the water column to suit a targeted species. A standard longline comprises of the long length of line with multiple branches of lines with hooks attached at regular intervals. If being used to target demersal species, the lines can be anchored at the ends which would cause some seabed penetration.

Plate 3.24.A-8 is an example of longlining gear. Longlining gear is used by English fishers around the study area.

Plate 3.24.A-8: Example of longlining gear



Source: SeaFish, (2022) (REF 3.24.A.1)

Handline

3.24.A.2.13 Handlining varies depending on where it is happening and what species is being targeted. In general, it uses a baited line from a stationary boat. The fisher pulls the line in by hand, rather than using rods or poles. However, poles and lines can be used. This method would involve a number of rods being set up on a boat. These might be operated by hand or mechanically. Bait is used to attract the target species.

Plate 3.24.A-9: Example of handline gear illustrates this gear type. Handline gear is used within the UK fleet within the 6 NM limit.

Plate 3.24.A-9: Example of handline gear



Source: SeaFish, (2022) (REF 3.24.A.1)

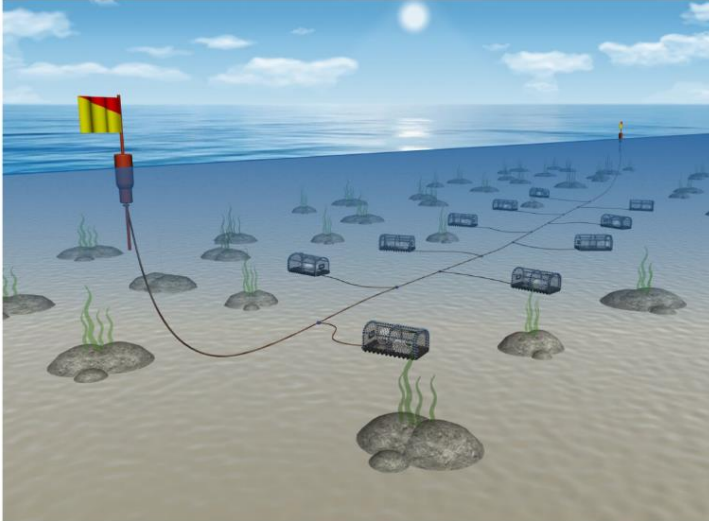
Pots and traps

3.24.A.2.14 Shellfish such as common whelk (*Buccinum undatum*), brown/edible crab (*Cancer pagurus*) and European lobster (*Homarus gammarus*) are targeted throughout the North Sea, using static gear such as pots (also known as creels). The design of pots will vary depending on region and species being targeted. Generally, the pots have one or more "funnel" shaped openings for the shellfish to enter through. Crab and whelk are targeted on sandy seabed, whilst pots are deployed on hard, rocky ground for lobster.

3.24.A.2.15 Lobster and crab pots tend to be on strings of 15 to 20 pots with most vessels working an average of 100 to 150 pots. These static pots sit on the seabed, left to 'soak' for between a couple of days to a week, and therefore cause no seabed penetration. This is illustrated in **Plate 3.24.A-10:** Example of a fleet of pots.

3.24.A.2.16 Whelk are generally caught using a purpose designed pot, which usually consists of modified, weighted plastic drums. The number of whelk pots on a string can be higher than those used for crab or lobster, with up to 80 pots per string. Most fleets' whelk vessels will work on average 600 to 800 pots. Pots and traps are used by UK fleet with the majority of them used within the 12 NM limit.

Plate 3.24.A-10: Example of a fleet of pots



Source: SeaFish, (2022) (REF 3.24.A.1)

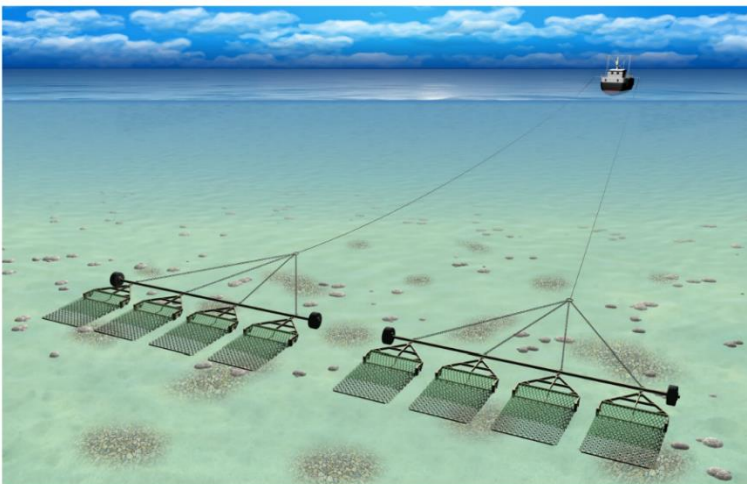
Scallop dredging

3.24.A.2.17 Scallop dredging gear are rigid structures which are towed behind a vessel along the seabed. They consist of a triangular frame with a toothed bar at the front which flip scallops out of the seabed in the collecting bag behind it, which is a chain link bottom and either a netting or chain link on the top. The size of the bar towing the dredges, and the number of dredges is based on the size and strength of the vessels towing. Smaller vessels, under 10 m may use three or four, whereas larger boats around 30 m in length can tow up to 20. **Plate 3.24.A-11** is an example of scallop dredging gear.

3.24.A.2.18 Scallop fishery is cyclical in nature with the production grounds rotating around the UK on a seven-to-eight-year cycle.

3.24.A.2.19 Vessels over 10 m who wish to catch scallop require a permit issued from the MMO to allow them to use mechanical dredging gear (MMO, 2024, REF 3.24.A.2 and REF 3.24.A.3). Four of the vessels registered at the local ports (those landed to from the nine ICES rectangles) within the study area currently hold Scallop licenses.

Plate 3.24.A-11: Example of scallop dredging gears



Source: SeaFish, (2022) (REF 3.24.A.1)

Hydraulic Suction Dredging

3.24.A.2.20 Cockle (*Cerastoderma edule*) is the primary species within the study area where hydraulic suction dredging is used. Hydraulic suction dredges direct high-pressured jets of water (through mechanical pumping of water) into the sediment to fluidise and dislodge any cockles. As the dredge blade moves through the fluidised sediment, cockles are collected and delivered to the vessel from the dredge head via suction created from a pump. The suction head is on the seabed and therefore interacts with it with penetration up to 50 mm. **Plate 3.24.A-12-** Example of Hydraulic Suction Dredging Vessel.

3.24.A.2.21 Suction gear is used by UK fishers within ICES rectangle 35F0. This activity takes place close to shore within the 12 NM limit. Within the MMO statistical data it is labelled as other mobile gears.

Plate 3.24.A-12: Example of Hydraulic Suction Dredging Vessel



Source: EIFCA, (2019) (REF 3.24.A.4)

3.24.A.3 Overview of landings data within the study area

3.24.A.3.1 The following sections look at the landings data within each of the ICES rectangles that the English study area intersect. This information is taken from the Marine Management Organisations (MMO) UK Sea fisheries annual statistics which are issued annually (REF 3.24.A.5). These statistics show the catch data from the previous year and four further years previous to that, 2019 to 2023. This allows the data from previous years to be compared to identify trends or anomalies in the catch.

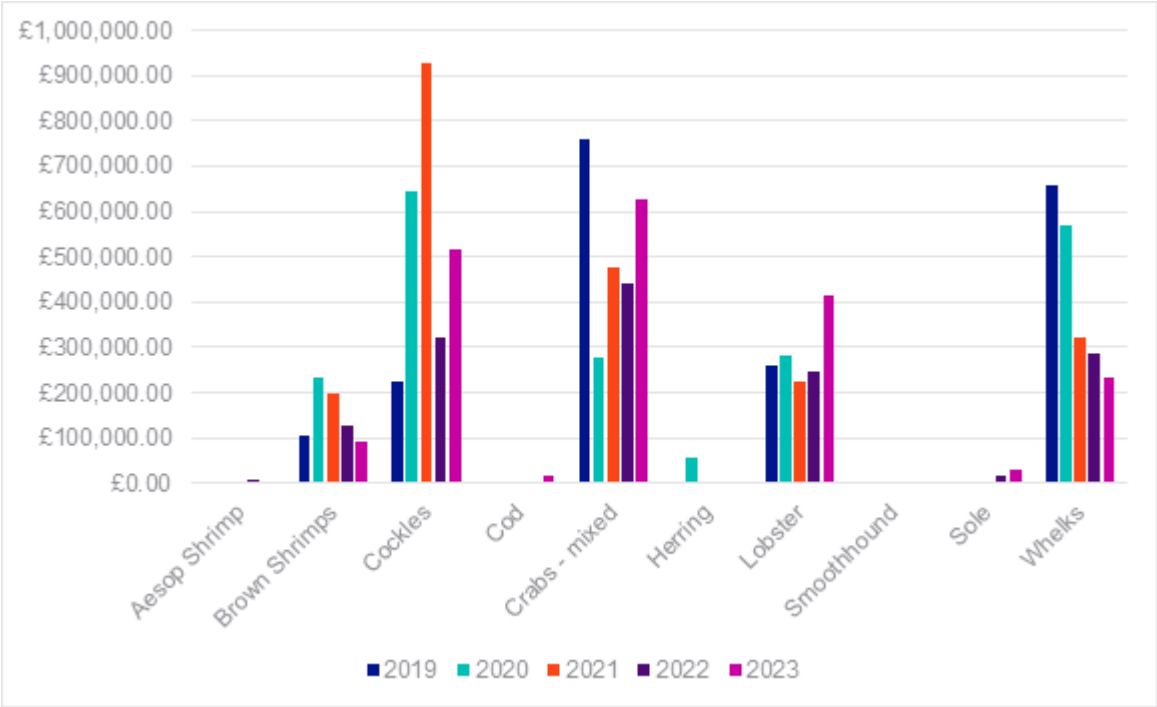
3.24.A.3.2 It is acknowledged that publicly available statistics will underrepresent the inshore fleet; fishing vessels <12 m are not required to carry Automatic Identification Systems (AIS). Landings data derived from the MMO catch statistics provide a general overview of fishing effort as fishers are able to sell catch directly in quantities <30 kg. Data will be supplemented with data received through consultation with the local fisheries stakeholders if available.

3.24.A.3.3 For each ICES rectangles we have analysed the different species caught by their catch value and their catch weight in tonnes and produced graphs showing the top 10 species over a five-year period. Additionally, we have looked at the different types of fishing methods used within each area and the catch values of these different gear types.

35F0

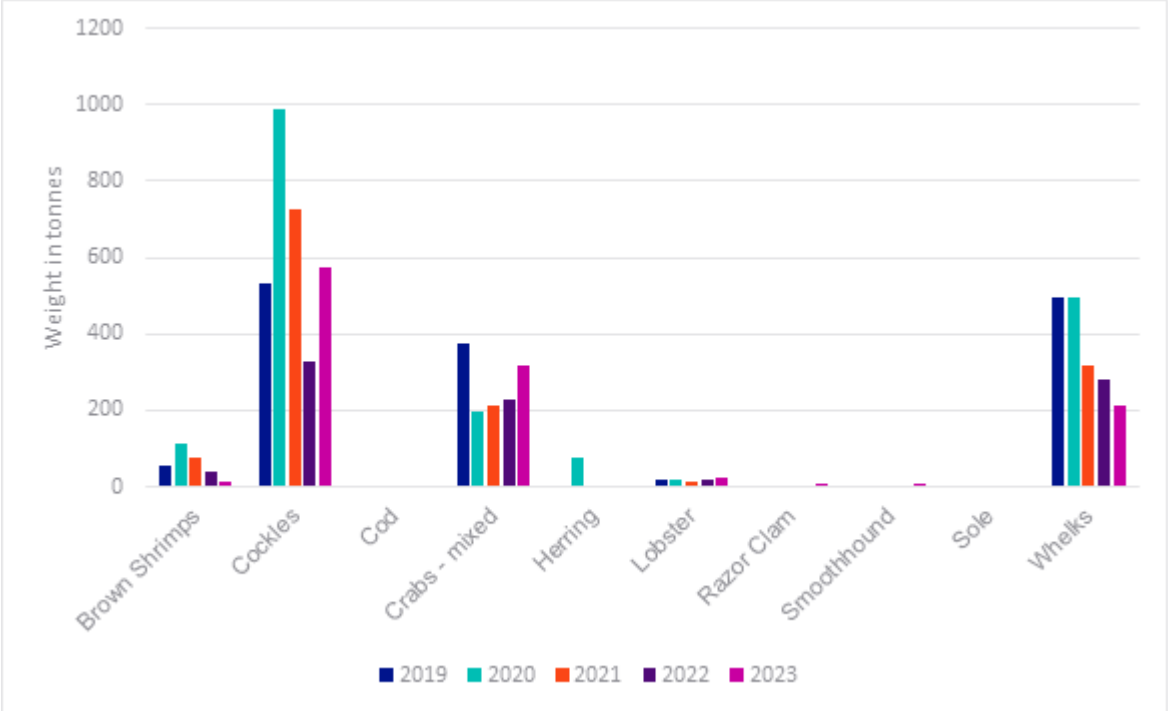
- 3.24.A.3.4 ICES rectangle 35F0 is the rectangle closest to the Landfall in Lincolnshire, it has the highest overall catch weight for the under 10 m vessels compared to the rest of the submarine cable route. It is primarily fished by the UK inshore fleet, which is illustrated in **Volume 3, Part 3, Figure 24-2 Surveillance sightings by vessel nationality during 2018 to 2023**.
- 3.24.A.3.5 It is the second most valued rectangle for the under 10 m vessels due to the high quantity of shellfish caught in this area, with six of the top ten species being shellfish as shown in **Plate 3.24.A-13**. This is also the case by weight as shown in **Plate 3.24.A-14**.
- 3.24.A.3.6 It is the only rectangle where 'other mobile gear' is used as shown in **Table 3.24.A-1** in this case the use of hydraulic suction dredgers which are used to catch cockles. The cockle catch in 35F0 is the highest value and highest catch weight species caught as shown in **Plate 3.24.A-13** and **Plate 3.24.A-14** Cockles are targeted between July and December.
- 3.24.A.3.7 Other shellfish species such as crabs, lobsters and whelks are caught using pots or traps which are caught all year round.

Plate 3.24.A-13: Top 10 species caught by annual landed value in ICES rectangle 35F0



Source MMO (2024) (REF 3.24.A.5)

Plate 3.24.A-14: Top 10 species caught by annual landed weight in ICES rectangle 35F0



Source MMO (2024) (REF 3.24.A.5)

Table 3.24.A-1 - Fishing gear used in ICES rectangle 35F0 between 2019 and 2023 by catch value

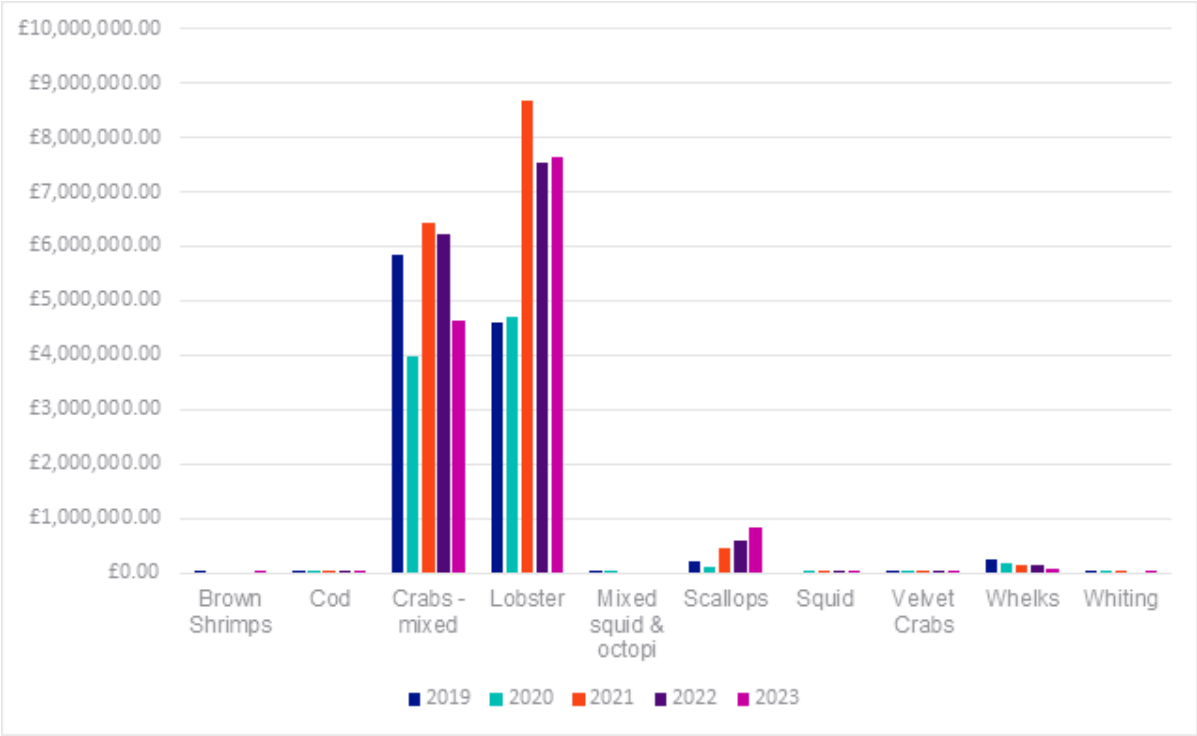
Year	Demersal Trawl	Pelagic Trawl	Pots and Traps	Dredge	Drift and fixed nets	Gears using Beam Trawl hooks	Other mobile gears	
2023	£52,682.00		£1,279,890.00	£792.00	£906.55	£9,582.00	£88,102.00	£517,571.00
2022	£18,888.00		£959,941.00	£64,394.00			£12,802.00	£279,155.00
2021	£5,079.00		£1,085,890.00	£3,310.00		£81.00	£145,476.00	£912,351.00
2020	£14,550.00	£54,573.00	£1,220,052.00	£2,286.00			£106,650.00	£661,594.00
2019	£9,555.00		£1,655,768.00	£7,830.00			£117,853.00	£219,049.00

Source MMO (2024) (REF 3.24.A.5)

36F0

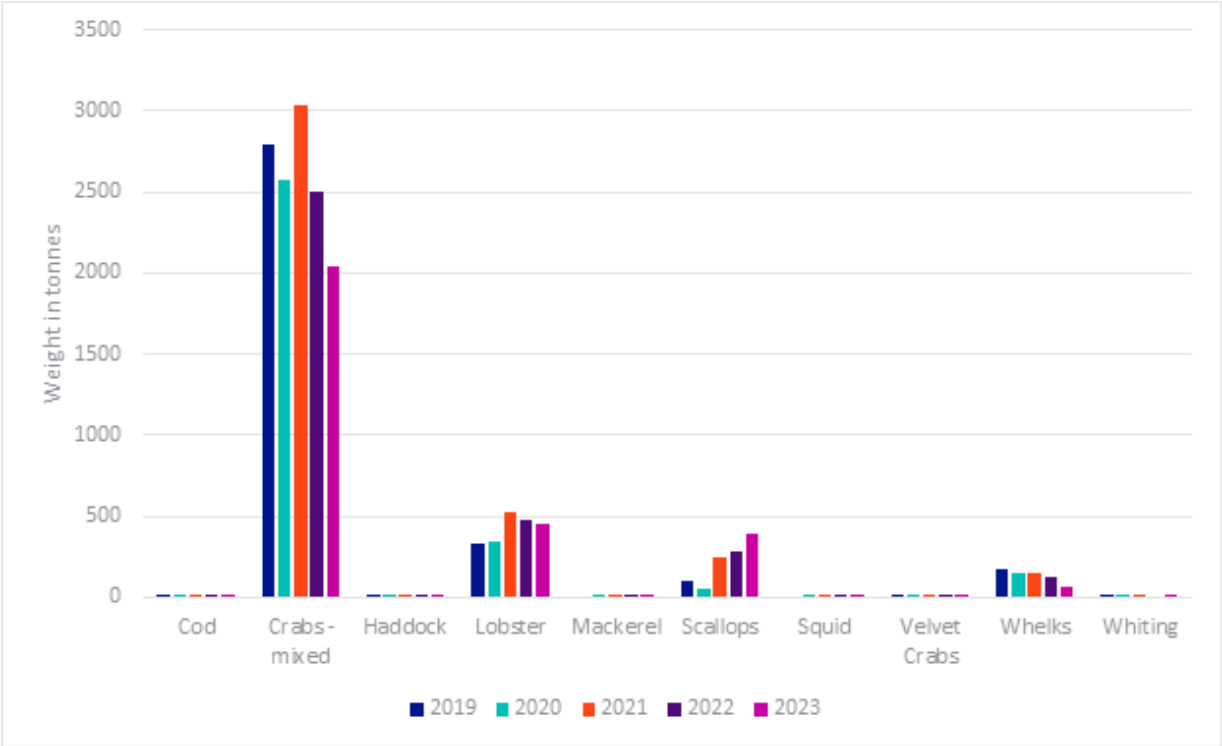
- 3.24.A.3.8 36F0 is off the coasts of South Yorkshire and North Lincolnshire. Rectangle 36F0 has the highest catch value along the submarine cable route, with a value of over £52 million over the last five years, which is twice as much as any other rectangle. In 2023, 99.7%, over £13 million, of the catch value was from shellfish which illustrates how important the shellfish industry is in this area. The bulk of this total is from crab and lobsters as shown in **Plate 3.24.A-15** and **Plate 3.24.A-16**.
- 3.24.A.3.9 The majority of vessels that fish within this rectangle are over 10 m, though it is also fished by the smaller UK inshore fleet. As well as the UK over 10 m fleet there is evidence of German and French trawling vessels This is illustrated in **Volume 3, Part 3, Figure 24-2 Surveillance sightings by vessel nationality during 2018 to 2023**. The majority of surveillance sightings are in the rectangles which are closest to the coastline, this is primarily due to the size of the vessels. The smaller < 10 m vessels tend to fish closer to shore whereas the bigger vessels have the ability to go further offshore. The majority of the European vessels sighted are in rectangles further offshore, this again is primarily due to the larger size of the European vessels.
- 3.24.A.3.10 The most used fishing gear type in 36F0 is pots and traps, with the second most popular gear type used being dredging primarily to target scallops as shown in **Table 3.24.A-2**. The MMO catch statistics show very little use of demersal trawling between 2019 and 2023 though there has been some use of demersal seine gear. This is illustrated in **Volume 3, Part 3, Figure 24-6 Bottom seines and dredging effort within the Study Area**.

Plate 3.24.A-15: Top 10 species caught by annual landed value in ICES rectangle 36F0



Source MMO (2024) (REF 3.24.A.5)

Plate 3.24.A-16: Top 10 species caught by annual landed weight in ICES rectangle 36F0



Source MMO (2024) (REF 3.24.A.5)

Table 3.24.A-2 - Fishing gear used in ICES rectangle 36F0 between 2019 and 2023 by catch value

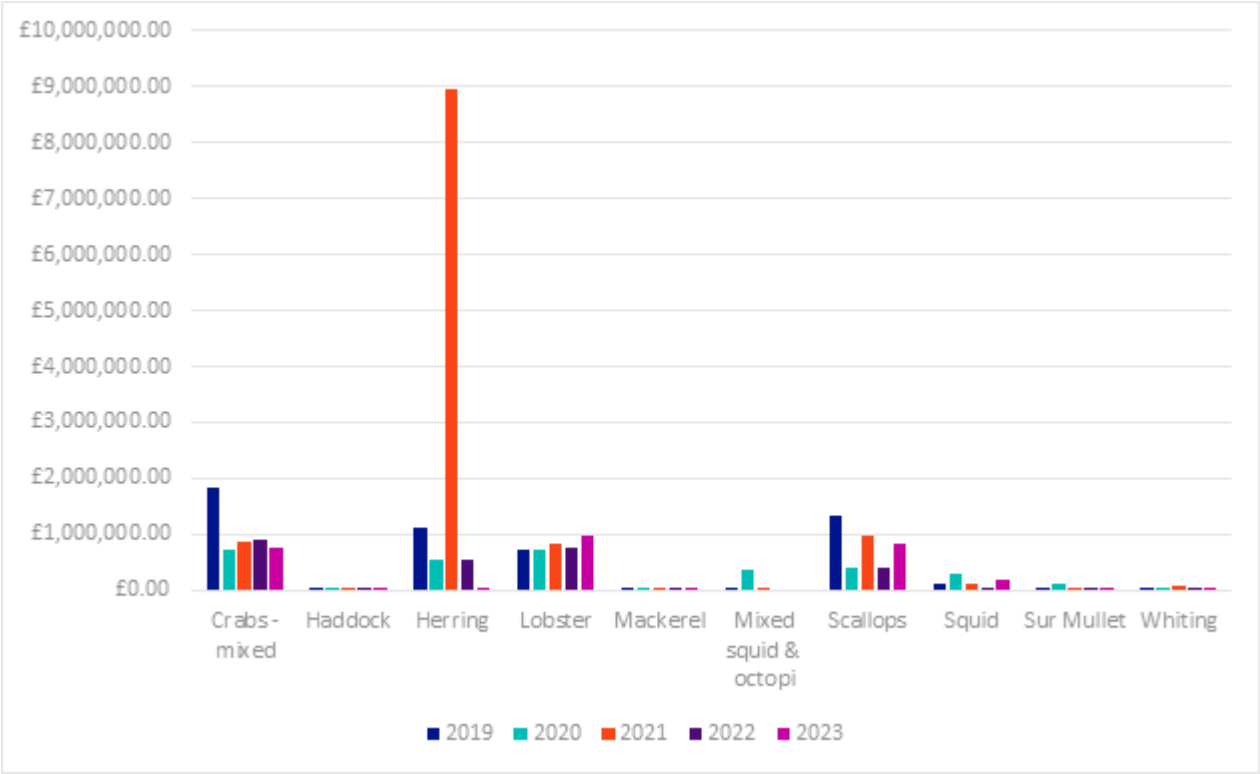
Year	Demersal Trawl	Pots and Traps	Dredge	Drift and Fixed Nets	Demersal seine	Gears using hooks	Beam Trawl
2023		£12,330,512.00	£823,579.00	£629.00	£35,5871.00	£14,911.00	£43,199.00
2022		£13,908,783.00	£584,456.00	£14,331.00	£43,470.00		
2021	£608.00	£15,292,598.00	£445,620.00	£1,970.00	£37,173.00	£434.00	
2020		£8,856,813.00	£100,130.00	£4,015.00	£33,183.00	£5,083.00	£19,572.00
2019		£10,681,840.00	£218,536.00		£17,722.00	£6,139.00	£1,548.00

Source MMO (2024) (REF 3.24.A.5)

37F0

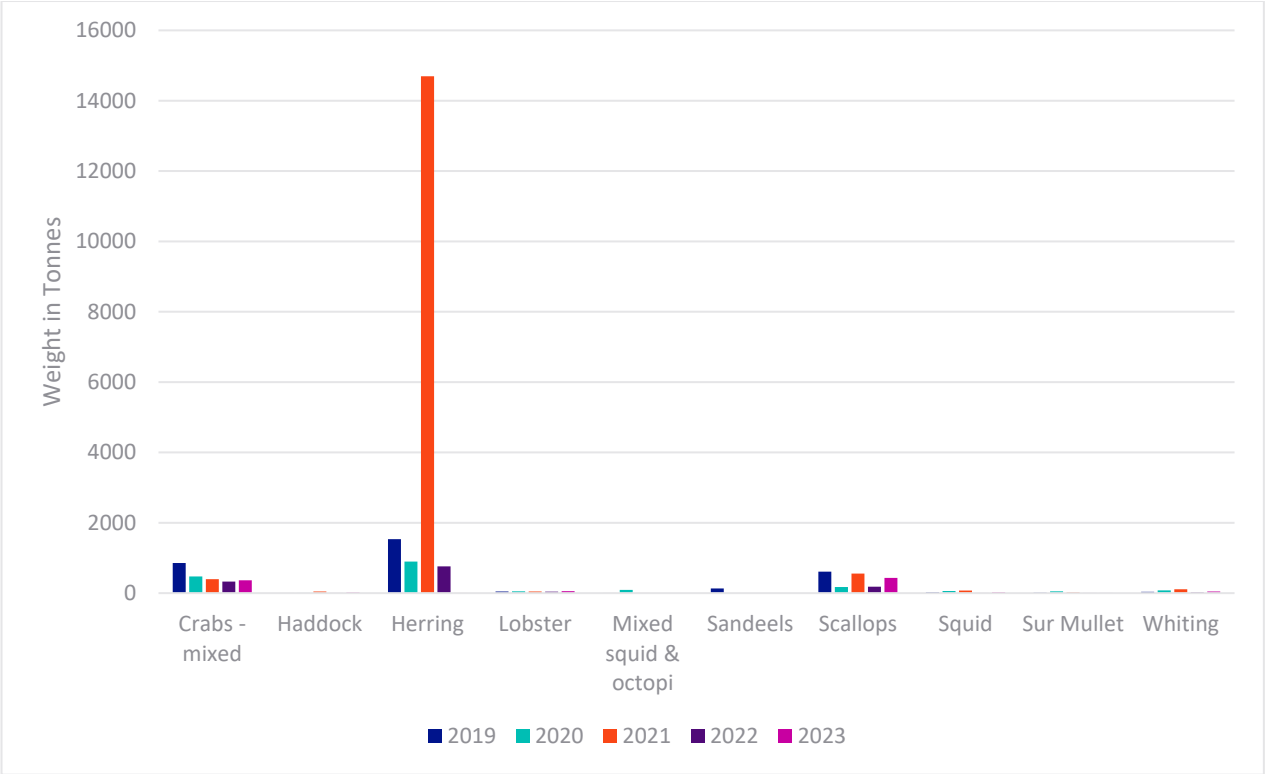
- 3.24.A.3.11 37F0 is off the coast of Yorkshire. The use of pots and traps is prevalent in ICES rectangle 37F0 to target crabs and lobsters as shown in **Table 3.24.A-3** The use of dredging gear is also noted to catch scallops within this rectangle, between 2019 and 2023 the scallop catch was over £3.9 million. The shellfish catch in 2023 accounted for 95.5 % of the catch value primarily from crab, lobster and scallops.
- 3.24.A.3.12 However, as can be shown in **Plate 3.24.A-17** - Top 10 species caught by annual landed value in ICES rectangle 37F0 and **Plate 3.24.A-18** - Top 10 species caught by annual landed weight in ICES rectangle 37F0 there is also evidence of a high pelagic trawl usage. In 2021 the catch of herring accounted for 74 % of the annual catch value. This is a good example of the normal annual variation in catch.
- 3.24.A.3.13 It should also be noted that the herring anomaly in 2021 was only from September by vessels over 40 m, with the majority of these vessels coming from Norway rather than the UK fleet. This also illustrates how seasonality and annual variation can affect the catch value.
- 3.24.A.3.14 The majority of the surveillance sightings are of the UK fleet but there is evidence of vessels from Denmark, France, the Netherlands, Portugal, Belgium, Germany and Norway as illustrated in **Volume 3, Part 3, Figure 24-2 Surveillance sightings by vessel nationality during 2018 to 2023**.

Plate 3.24.A-17: Top 10 species caught by annual landed value in ICES rectangle 37F0



Source MMO (2024) (REF 3.24.A.5)

Plate 3.24.A-18: Top 10 species caught by annual landed weight in ICES rectangle 37F0



Source MMO (2024) (REF 3.24.A.5)

Table 3.24.A-3 - Fishing gear used in ICES rectangle 37F0 between 2019 and 2023 by catch value

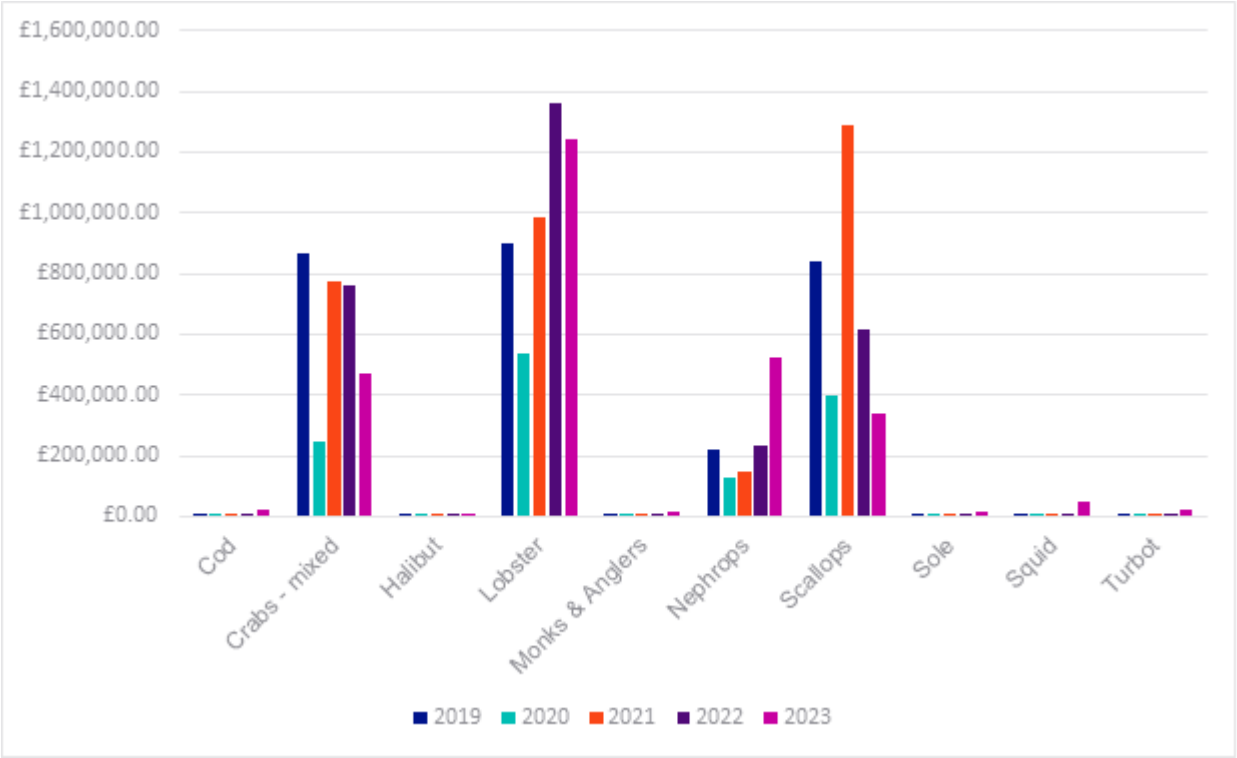
Year	Demersal Trawl	Pelagic Trawl	Pots and Traps	Dredge	Drift and Demersal seine Fixed Nets	Gears using hooks	Beam Trawl
2023			£1,456,686.00	£828,255.00		£302,221.00	£67.00
2022	£1,565.00	£565,338.00	£1,671,231.00	£410,428.00		£142,714.00	
2021	£516.00	£8,951,739.00	£1,695,828.00	£974,458.00	£21.00	£294,146.00	
2020	£280,402.00	£291,277.00	£1,437,352.00	£410,638.00		£822,301.00	£84,758.00
2019		£1,163,329.00	£2,622,583.00	£1,334,657.00		£222,998.00	£10.00
							£1,935.00

Source MMO (2024) (REF 3.24.A.5)

38E9

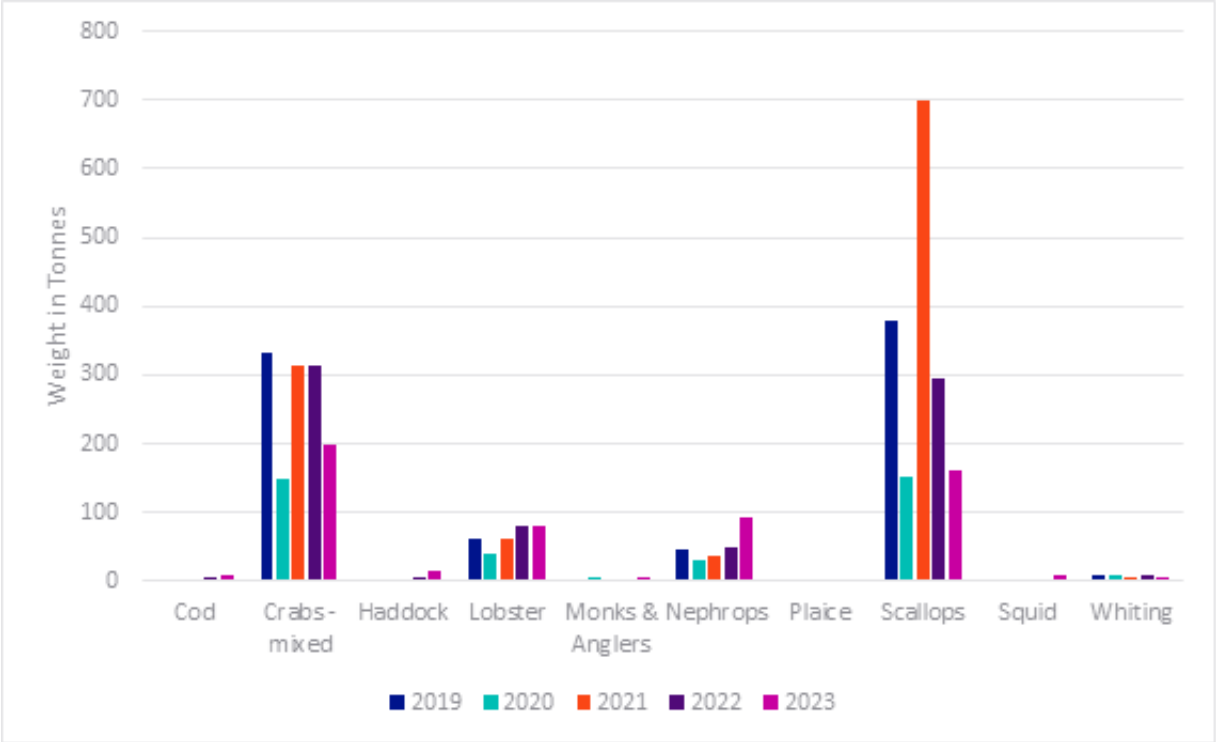
- 3.24.A.3.15 38E9 is off the North Yorkshire Coast and as with many of the rectangles along the study area, shellfish catch is the most important and the highest value in terms of weight and monetary value. Five of the top 10 species caught by value are shellfish with lobster, scallops and crabs being the most caught species as illustrated in **Plate 3.24.A-19** and **Plate 3.24.A-20**.
- 3.24.A.3.16 In terms of weight scallops and crabs are the most prevalent as illustrated in **Plate 3.24.A-20** - species caught by annual landed weight in ICES rectangle 38E9.
- 3.24.A.3.17 Pots and traps are the main gear type used but there is also high-level use of dredging gear to primarily catch scallops as well as demersal trawlers targeting species such as cod, halibut and sole as shown in **Table 3.24.A-4** However, the demersal catch in 2023 only accounted for 4% of the overall catch value of this rectangle.
- 3.24.A.3.18 In terms of vessel nationality, the MMO surveillance sightings only show UK vessels fishing within this rectangle as illustrated in **Volume 3, Part 3, Figure 24.2 Surveillance sightings by vessel nationality during 2018 to 2023**.

Plate 3.24.A-19: Top 10 species caught by annual landed value in ICES rectangle 38E9



Source MMO (2024) (REF 3.24.A.5)

Plate 3.24.A-20: Top 10 species caught by annual landed weight in ICES rectangle 38E9



Source MMO (2024) (REF 3.24.A.5)

Table 3.24.A-4 - Fishing gear used in ICES rectangle 38E9 between 2019 and 2023 by catch value

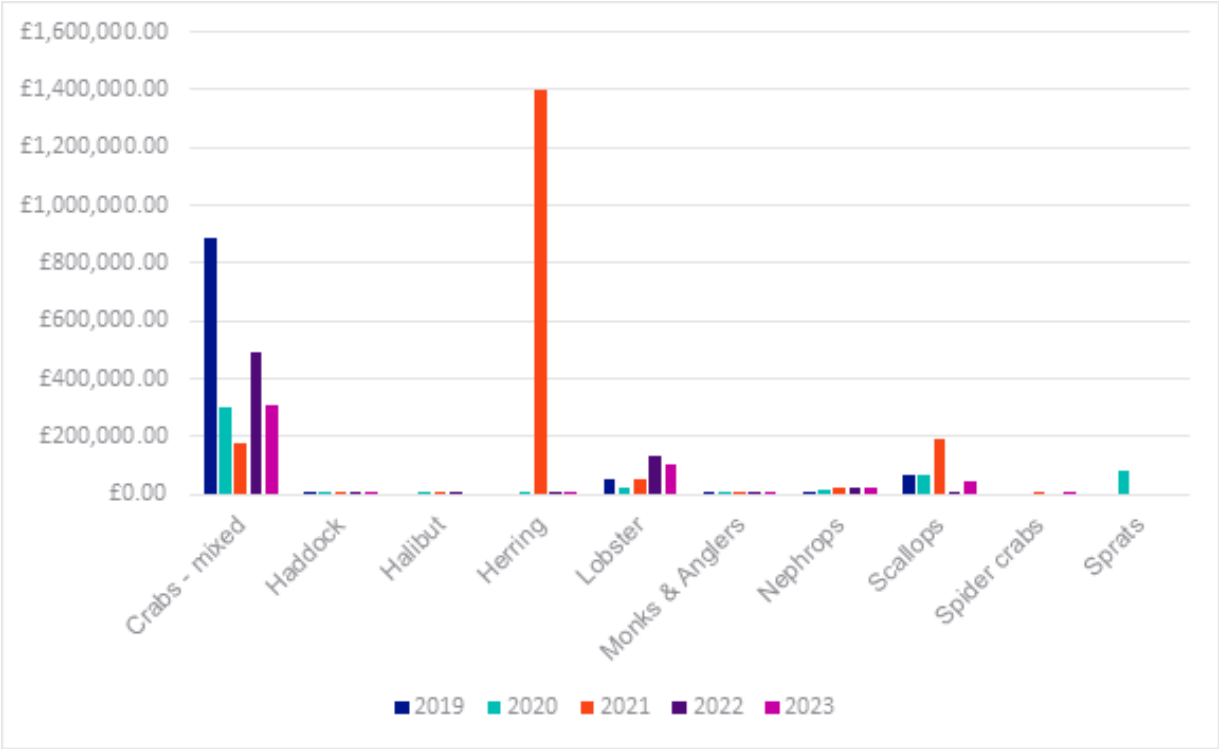
Year	Demersal Trawl	Pots and Traps	Dredge	Drift and Fixed Nets	Demersal seine	Beam Trawl
2023	£769,712.00	£1,715,635.00	£205,682.00			£40,219.00
2022	£386,980.00	£2,117,249.00	£527,607.00	£398.00		
2021	£195,953.00	£1,779,802.00	£1,271,096.00			
2020	£162,315.00	£785,490.00	£395,025.00		£1,363.00	£6,000.00
2019	£243,753.00	£1,770,148.00	£853,437.00			

Source MMO (2024) (REF 3.24.A.5)

38F0

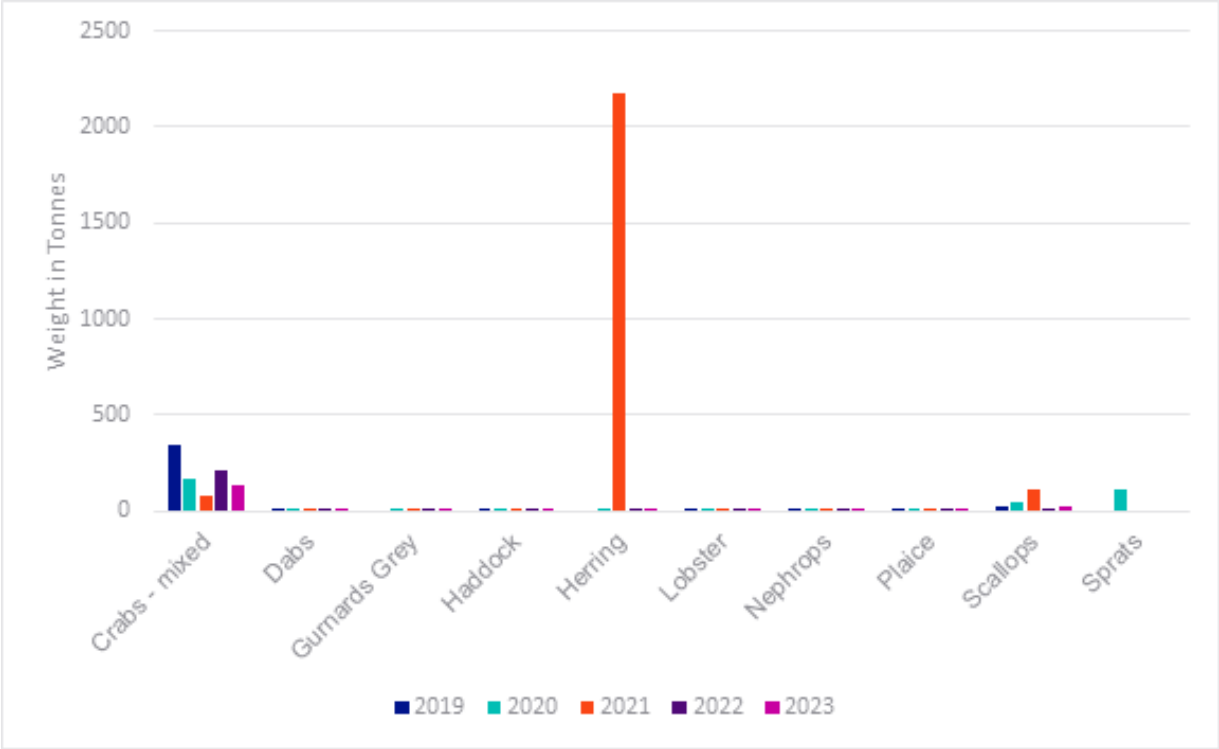
- 3.24.A.3.19 38F0 is approximately 50 km off the coast of Yorkshire. Like ICES rectangle 37F0, rectangle 38F0 demonstrates the anomaly of herring catch in 2021. Apart from this anomaly the most valuable catches are still that of shellfish. Five of the top 10 species caught by value are shellfish with lobster, scallops and crabs being the most caught species as shown in **Plate 3.24.A-21** and **Plate 3.24.A-22**.
- 3.24.A.3.20 Pots and traps are the main gear type used but there is also medium-level use of dredging gear to primarily catch scallops as well as demersal trawlers targeting species such as haddock and halibut as shown in **Table 3.24.A-5**. There is also some use of pelagic trawl gear for herring and sprats. However, the demersal catch in 2023 only accounted for 1.8 % of the overall catch value of this rectangle and pelagic approximately 0.13 %.
- 3.24.A.3.21 The MMO surveillance sightings show that this rectangle is fished by vessels from the UK and France as Illustrated in **Volume 3, Part 3, Figure 24-2 Surveillance sightings by vessel nationality during 2018 to 2023**.

Plate 3.24.A-21: Top 10 species caught by annual landed value in ICES rectangle 38F0



Source MMO (2024) (REF 3.24.A.5)

Plate 3.24.A-22: Top 10 species caught by annual landed weight in ICES rectangle 38F0



Source MMO (2024) (REF 3.24.A.5)

Table 3.24.A-5 - Fishing gear used in ICES rectangle 38F0 between 2019 and 2023 by catch value

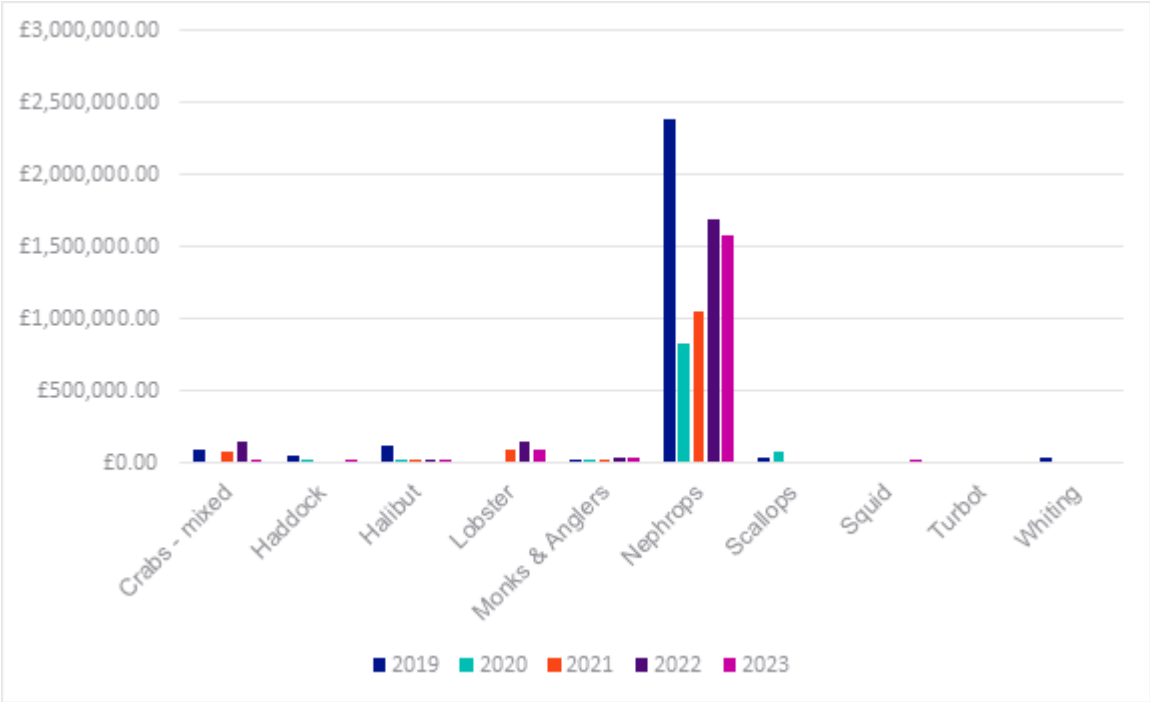
Year	Demersal Trawl	Pelagic Trawl	Pots and Traps	Dredge	Beam Trawl
2023	£30,988.00	£670.00	£417,177.00	£47,236.00	
2022	£33,083.00		£623,277.00	£3,172.00	
2021	£46,502.00	£1,399,446.00	£230,734.00	£189,802.00	
2020	£22,245.00	£81,530.00	£326,390.00	£69,851.00	£413.00
2019	£14,982.00		£940,063.00	£69,846.00	

Source MMO (2024) (REF 3.24.A.5)

39E9

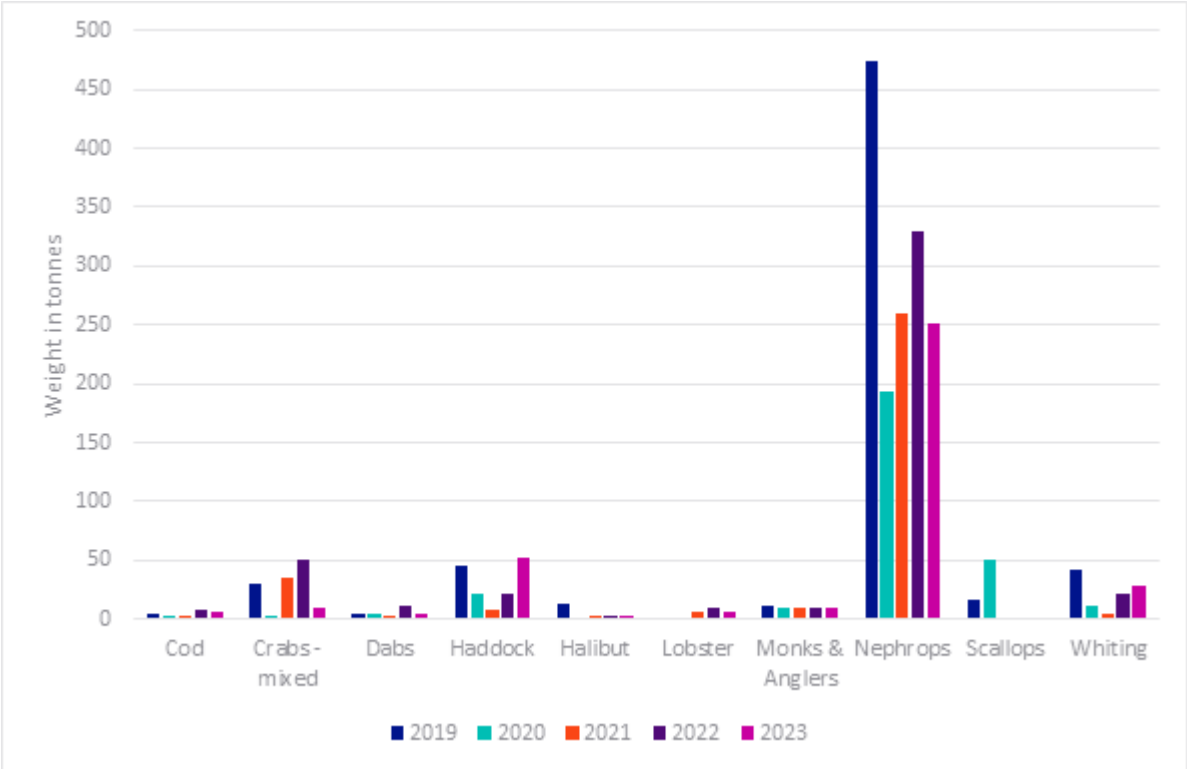
- 3.24.A.3.22 38E9 is one of the furthest offshore rectangles off the coast of Northumberland along the submarine cable route, and we see a noticeable change in the type of fishing gear used. Although shellfish still account for over 91 % of the catch value it is a different species, nephrops also known as the Norwegian lobster which is caught using demersal trawl gear rather than pots and traps as shown in **Plate 3.24.A-23** and **Plate 3.24.A-24**.
- 3.24.A.3.23 Pots and traps only account for 6.7% revenue in 2023 with demersal trawling accounting for over 92% as shown in **Table 3.24.A-6**.
- 3.24.A.3.24 Over 88 % of the landed weight in this rectangle comes from the over 10 m vessels, this may be because it is too far out for the under 10 m vessel fleet who typically fish within the 12 NM boundary.

Plate 3.24.A-23: Top 10 species caught by annual landed value in ICES rectangle 39E9



Source MMO (2024) (REF 3.24.A.5)

Plate 3.24.A-24: Top 10 species caught by annual landed weight in ICES rectangle 39E9



Source MMO (2024) (REF 3.24.A.5)

Table 3.24.A-6 - Fishing gear used in ICES rectangle 39E9 between 2019 and 2023 by catch value

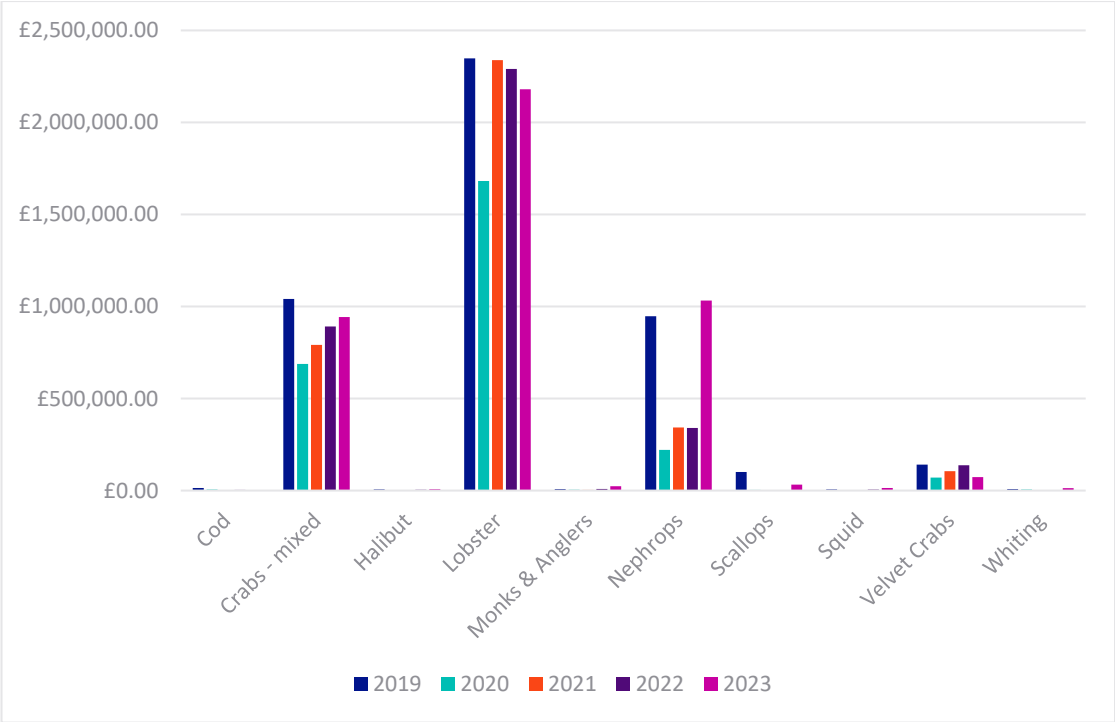
Year	Demersal Trawl	Pots and Traps	Dredge	Demersal seine	Pelagic Seine	Beam Trawl
2023	£1,753,854.00	£128,383.00		£7,667.00		
2022	£1,852,872.00	£287,004.00			£14,705.00	
2021	£1,117,124.00	£177,173.00	£1,999.00		£40,948.00	
2020	£934,970.00	£9,492.00	£75,233.00	£1,149.00		£3,589.00
2019	£2,680,922.00	£99,031.00	£37,218.00			

Source MMO (2024) (REF 3.24.A.5)

40E8

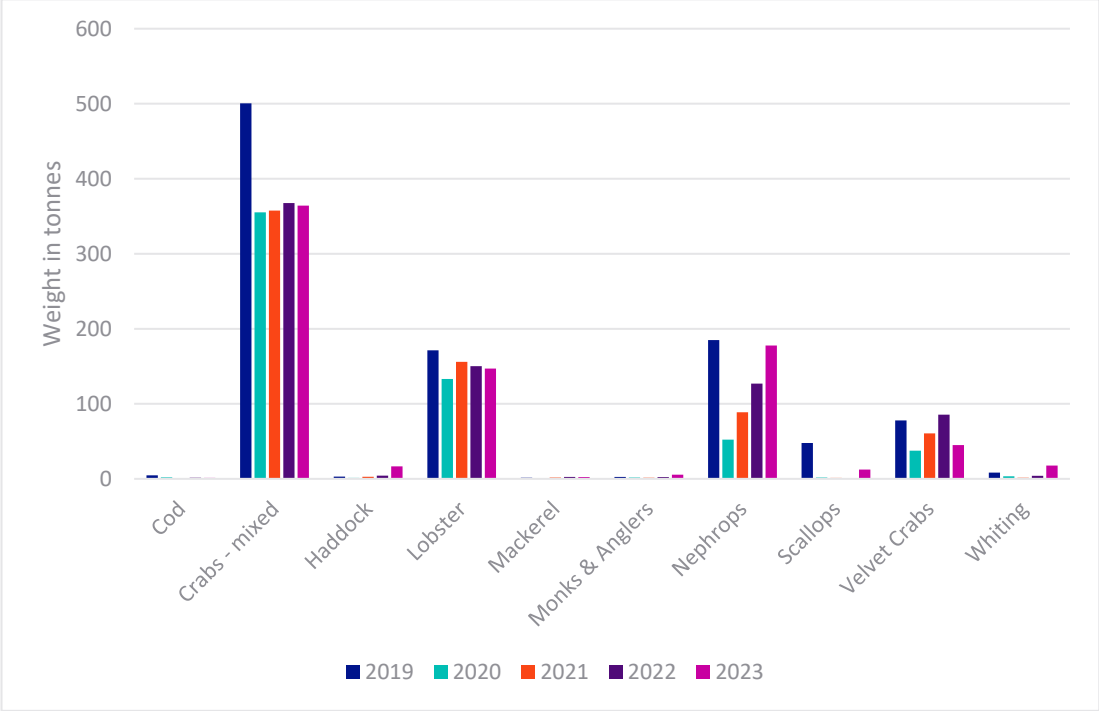
- 3.24.A.3.25 40E8 is a rectangle closer to the coastline of Northumberland which is heavily fished within the 6 NM limit primarily for shellfish species using pots and traps as the favoured fishing gear method. Six of the top ten species caught by value are shellfish, with lobsters and crabs being the most popular as shown in **Plate 3.24.A-25** and **Plate 3.24.A-26**.
- 3.24.A.3.26 Demersal trawling is also at a medium level targeting demersal species such as cod, halibut, whiting, and nephrops (some finfish may have been landed as bycatch from the nephrops fishery), yet in terms of value the demersal catch in 2023 only equated to 1.5% of the annual catch value as shown in **Table 3.24.A-7**.
- 3.24.A.3.27 Both the under 10 m and over 10 m vessels use these grounds with a mix of English and Scottish vessels present in the area due to the closeness of the Scottish border. There is little evidence of European vessels working in this area.

Plate 3.24.A-25: Top 10 species caught by annual landed value in ICES rectangle 40E8



Source MMO (2024) (REF 3.24.A.5)

Plate 3.24.A-26: Top 10 species caught by annual landed weight in ICES rectangle 40E8



Source MMO (2024) (REF 3.24.A.5)

Table 3.24.A-7 - Fishing gear used in ICES rectangle 40E8 between 2019 and 2023 by catch value

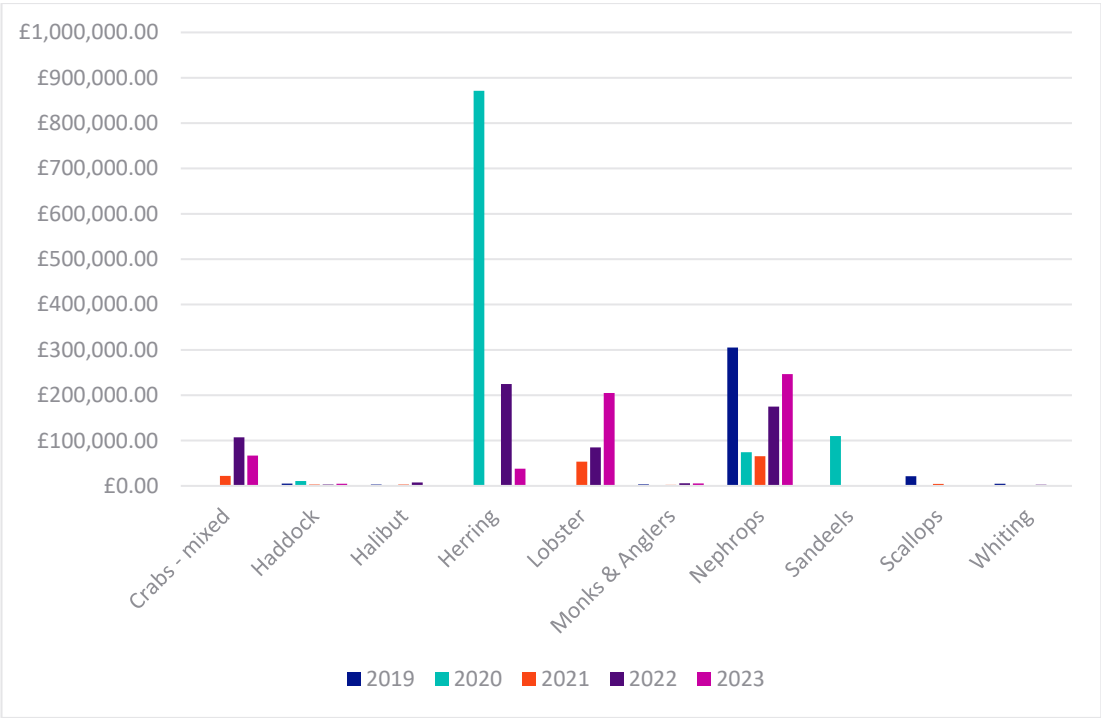
Year	Demersal Trawl	Pots and Traps	Dredge	Demersal seine	Gears using hooks	Beam Trawl
2023	£1,119,853	£3,200,102.00	£32,103.00		£2,159.00	
2022	£706,316.00	£3,319,778.00			£4,133.00	
2021	£350,063.00	£3,243,321.00	£1,999.00		£1,465.00	
2020	£234,817.00	£2,441,892.00	£3,616.00	£13,205.00	£1,148.00	
2019	£980,626.00	£3,532,118.00	£100,622.00	£17,422.00	£2,941.00	£1,022.00

Source MMO (2024) (REF 3.24.A.5)

40E9

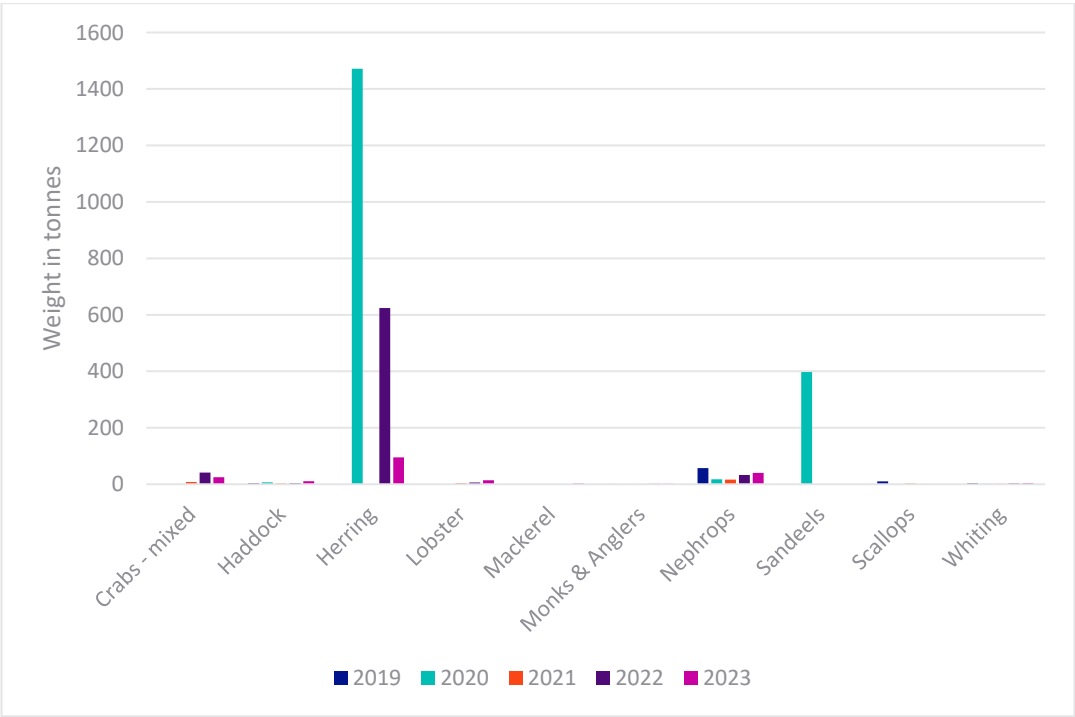
- 3.24.A.3.28 Rectangle 40E9 is around 38 km from the coastline of Northumberland at its nearest point, and there is a noticeable change in the type of fishing gear used within it. Demersal trawling is the most used gear in this area, with some use of pots and traps as shown in **Table 3.24.A.-8**. The majority of catch is by the over 10 m vessels due to the distance from the shore.
- 3.24.A.3.29 There is a noticeable anomaly on herring catch in 2020 where three catches in September accounted for over £870,000, which was just over 80% of the catch value that year as shown in **Plate 3.24.A-27** and **Plate 3.24.A.24-28**.
- 3.24.A.3.30 Also, in 2020 there was a very large catch of sandeels with a value of £110,000. This is the only rectangle within the study area that has any evidence of a sandeel catch. Sandeels are now prohibited as a catch species due to their importance as a prey species for other fish, offshore birds and marine mammals. Further information about sandeels can be found in **Section 20.5.37 to 20.5.41 of Volume 1, Part 3, Chapter 20 Fish and Shellfish** and within **Appendix Herring and Sandeel Assessment** which will be included in Environmental Statement (ES).
- 3.24.A.3.31 The MMO surveillance sightings show that this rectangle is fished by vessels from Denmark, the Netherlands and the UK as illustrated in **Volume 3, Part 3 Figure 24-2 Surveillance sightings by vessel nationality during 2018 to 2023**.
- 3.24.A.3.32 Compared to the rectangles further south along the submarine cable route this has one of the lowest catch values. In 2023 the annual catch value was £584,065 compared to 36F0 whose annual catch value was over £13 million.

Plate 3.24.A-27: Top 10 species caught by annual landed value in ICES rectangle 40E9



Source MMO (2024) (REF 3.24.A.5)

Plate 3.24.A.24-28: Top 10 species caught by annual landed weight in ICES rectangle 40E9



Source MMO (2024) (REF 3.24.A.5)

Table 3.24.A.-8 - Fishing gear used in ICES rectangle 40E9 between 2019 and 2023 by catch value

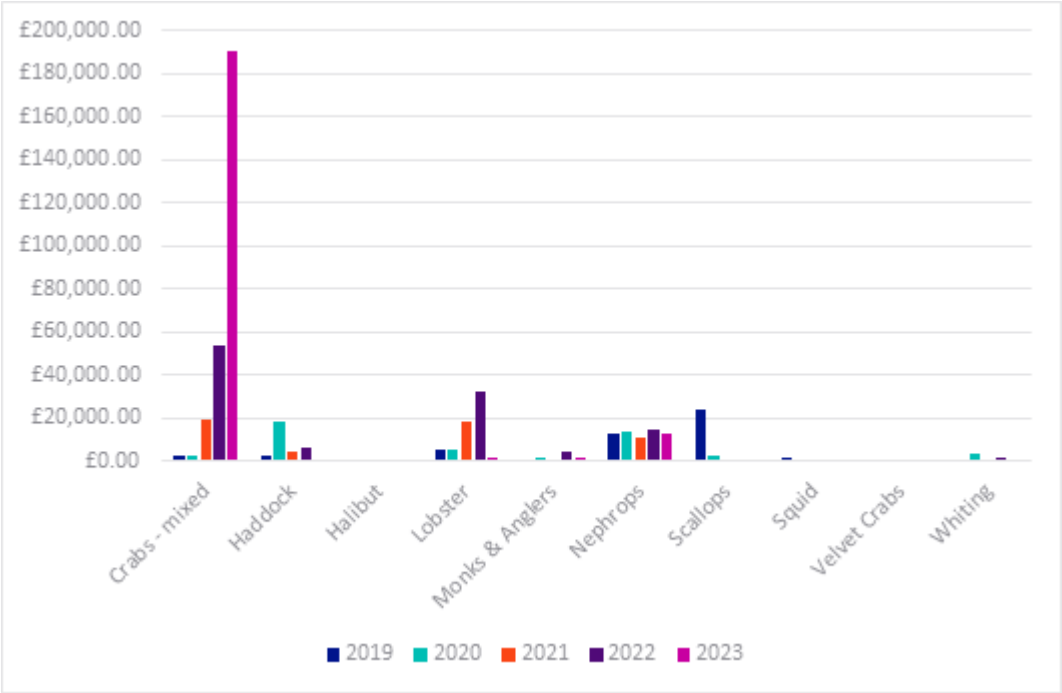
Year	Demersal Trawl	Pelagic Trawl	Pots and Traps	Dredge	Demersal seine
2023	£253,481.00	£40,057.00	£289,940.00		£585.94
2022	£198,504.00	£225,046.00	£192,089.00		
2021	£77,865.00		£75,478.00	£4,396.00	
2020	£650,551.00	£415,699.00	£3,077.00	£1,561.00	£7,577.00
2019	£327,074.00		£1,242.00	£21,895.00	

Source MMO (2024) (REF 3.24.A.5)

41E9

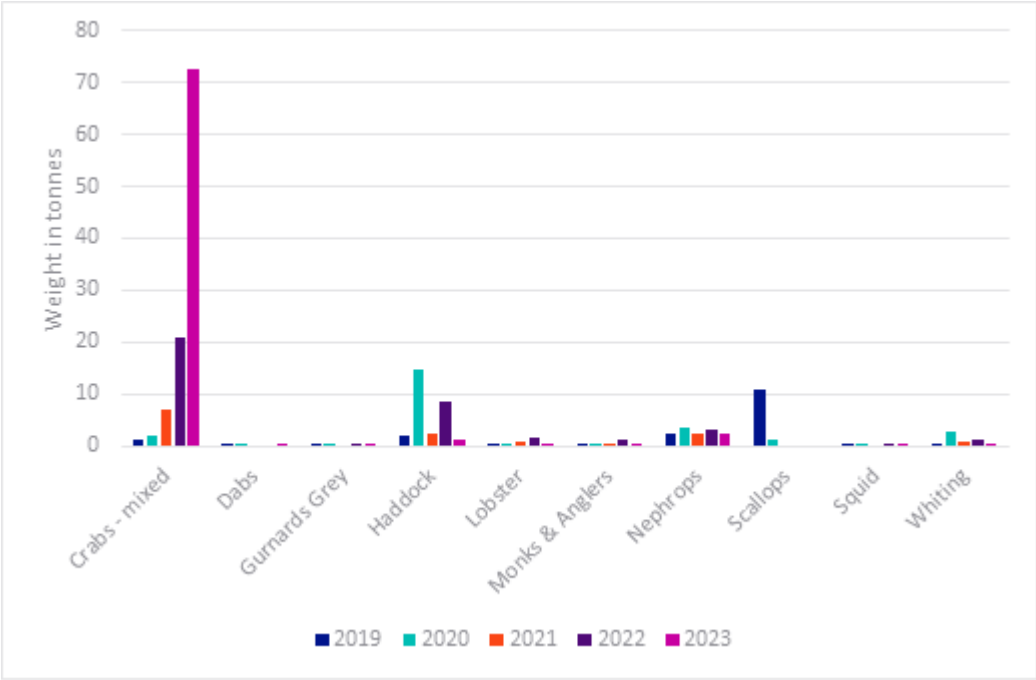
- 3.24.A.3.33 41E9 is the furthest north and offshore of the rectangles within the project area and also crosses into the Scottish territorial waters. It is also the furthest rectangle within the submarine cable route from the English or Scottish coast.
- 3.24.A.3.34 Due to its location, this rectangle shows no landings of vessels under 10m over the period analysed. It also has the lowest catch value by weight or cash value of any of the rectangles along the submarine cable route with a total value between 2019 and 2023 of just over £480,000 as shown in **Plate 3.24.A.-29** and **Plate 3.24.A.-30**.
- 3.24.A.3.35 The MMO surveillance sightings only show that vessels for the Danish fleet fish within this rectangle as illustrated in **Volume 3, Part 3, Figure 24-2 Surveillance sightings by vessel nationality during 2018 to 2023**.
- 3.24.A.3.36 In terms of the gears used it is primarily pots and traps or demersal trawling with the most targeted species being shellfish, mainly crabs, lobsters and nephrops as shown in **Table 3.24.A.-9**.

Plate 3.24.A.-29: Top 10 species caught by annual landed value in ICES rectangle 41E9



Source MMO (2024) (REF 3.24.A.5)

Plate 3.24.A.-30: Top 10 species caught by annual landed weight in ICES rectangle 41E9



Source MMO (2024) (REF 3.24.A.5)

Table 3.24.A.-9 - Fishing gear used in ICES rectangle 41E9 between 2019 and 2023 by catch value

Year	Demersal Trawl	Pots and Traps	Dredge	Demersal seine	Pelagic Seine
2023	£15,975.00	£192,178.00		£733.73	
2022	£27,326.00	£86,291.00			
2021	£4,746.00	£36,882.00		£5,542.00	£6,398.00
2020	£17,217.00	£8,048.00	£2,379.00	£23,143.00	
2019	£17,040.00	£8,969.00	£23,401.00	£2,072.00	

Source MMO (2024) (REF 3.24.A.5)

Bibliography

REF 3.24.A.1 SeaFish (2012) Best Practice Guidance for Fishing Industry Financial and Economic Impact Assessments. Available at: [Best Practice Guidance for Fishing Industry Financial and Economic Impact Assessments — Seafish](#) (Accessed 7 January 2025)

REF 3.24.A.2 MMO (2024) Vessel lists 10 metres and under - September 2024. Available at: <https://www.gov.uk/government/statistical-data-sets/vessel-lists-10-metres-and-under> (Accessed 24 October 2024)

REF 3.24.A.3 MMO (2024) Vessel lists over 10 metres - September 2024. Available at: <https://www.gov.uk/government/statistical-data-sets/vessel-lists-over-10-metres> (Accessed 24 October 2024)

REF 3.24.A.4 EIFCA (2023b) Whelk Permit Byelaw 2016. Available at: <https://www.eastern-ifca.gov.uk/whelk-permit-byelaw-2016/> (Accessed January 2025)

REF 3.24.A.5 MMO (2024) UK sea fisheries annual statistics report 2023. Available at: <https://www.gov.uk/government/statistics/uk-sea-fisheries-annual-statistics-report-2023> (Accessed 10 December 2024)

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