XLINKS' MOROCCO-UK POWER PROJECT

Environmental Statement

Volume 3, Appendix 3.1: Commercial Fisheries Baseline – Part 2

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November 2024

For Issue

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Prepared by:

APEM / NiMa Consultants Ltd

Prepared for:

Xlinks 1 Limited

Glossary

Term	Definition
Beam trawl	A method of bottom trawling with a net that is held open by a beam, which is generally a heavy steel tube supported by steel trawl heads at each end. Tickler chains or chain mats, attached between the beam and the ground rope of the net, are used to disturb fish and crustaceans that rise up and fall back into the attached net.
Bycatch	Catch which is retained and sold but is not the target species for the fishery.
Demersal	Living on or near the seabed.
Fish stock	Any natural population of fish which an isolated and self-perpetuating group of the same species.
Fishery	A group of vessel voyages which target the same species or use the same gear.
Fishing ground	An area of water or seabed targeted by fishing activity.
Fishing mortality	Mortality due to fishing; death or removal of fish from a population due to fishing.
Fleet	A physical group of vessels sharing similar characteristics (e.g., nationality).
Flyseine (demersal seine)	Flyseining, also known as flyshooting or demersal seining, is a fishing method involving use of long weighted ropes to herd fish into the mouth of the trawl net to target demersal species which live or feed on or near the seabed.
Gadoid	A bony fish of an order (Gadiformes) that comprises the cods, hakes, and their relatives.
Gear type	The method / equipment used for fishing.
ICES statistical rectangles	ICES standardise the division of sea areas to enable statistical analysis of data. Each ICES statistical rectangle is '30 min latitude by 1 degree longitude' in size (approximately 30 x 30 nautical miles). A number of rectangles are amalgamated to create ICES statistical areas.
Landings	Quantitative description of amount of fish returned to port for sale, in terms of value or weight.
Maximum Sustainable Yield	Maximum sustainable yield (MSY) is the largest yield (catch, in tonnes) that can be taken from a specific fish stock over an indefinite period under constant environmental conditions. Fishing at MSY levels should ensure the capacity of the stock to continue to produce this level in the long term.
Metier	A homogenous subdivision, either of a fishery by vessel type or a fleet by voyage type.
Minimum Landing Size (MLS)	Is a technical measure that limits the size of fish or shellfish species that can be legally landed and sold. The MLS varies per species. With the implementation of the Landings Obligation, the existing MLS are changed into minimum conservation reference sizes (MCRS), but they will remain largely the same.
Nets	Nets refers to a wall of netting that hangs in the water column, typically made of monofilament or multifilament nylon. Net mesh size and position in the water column vary depending upon the target species. Nets are deployed and left to soak before being hauled. In the context of this document, 'nets' includes both anchored (fixed to seabed) and suspended (drift, moves with tide or current) nets.
Otter trawl	A net with large rectangular boards (otter boards) which are used to keep the mouth of the trawl net open. Otter boards are made of timber or steel and are positioned in such a way that the hydrodynamic forces, acting on

Term	Definition
	them when the net is towed along the seabed, pushes them outwards and prevents the mouth of the net from closing.
Pelagic	Of or relating to the open sea.
Pelagic trawl	A net used to target fish species in the mid water column.
Pots	Pots and traps are generally rigid structures into which fish or shellfish are guided or enticed through funnels that make entry easy but from which escape is difficult. There are many different styles and designs, each one has been designed to suit the behaviour of its target species.
Quota	A proportion of the Total Allowable Catch for a fish stock.
Recruitment	Recruitment can be defined as the number of fish surviving to enter the fishery or to some life history stage such as settlement or maturity.
Scallop dredge	A method to catch scallop using steel dredges with a leading bar fitted with a set of spring loaded, downward pointing teeth. Behind this toothed bar (sword), a mat of steel rings is fitted. A heavy net cover (back) is laced to the frame, sides and after end of the mat to form a bag.
Shellfish	Exoskeleton-bearing aquatic invertebrates including molluscs and crustaceans.
Spawning	The act of releasing or depositing eggs (fish).
Spawning stock biomass	The combined weight (in tonnes) of all the fish of one specific stock that are old enough to spawn. It provides an indication of the status of the stock and the reproductive capacity of the stock.
Stock assessment	An assessment of the biological stock of a species and its status in relation to defined references points for biomass and fishing mortality.
String	A series of static fishing gear (pots) joined together to form a single deployable linear line of pots.
The Project	UK marine elements of Q&E North.
Total Allowable Catch (TAC)	TACs are catch limits, expressed in tonnes or numbers, that are set for some commercial fish stocks.
Vessel Monitoring System (VMS)	A system used in commercial fishing to allow environmental and fisheries regulatory organizations to monitor, minimally, the position, time at a position, and course and speed of fishing vessels.

Acronyms

Acronym	Meaning
AIS	Automatic Identification System
DCF	Data Collection Framework
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
EMSA	European Maritime Safety Agency
ES	Environmental Statement
EU	European Union
FLO	Fisheries Liaison Officer
GIS	Geographic Information System
ICES	International Council for the Exploration of the Sea
IFCA	Inshore Fisheries and Conservation Authority

Acronym	Meaning
MMO	Marine Management Organisation
PLN	Port Letter and Number
RBS	Registration of Buyers and Sellers
SAR	Swept Area Ratio
STECF	Scientific, Technical and Economic Committee for Fisheries
TAC	Total Allowable Catch
TCA	Trade and Cooperation Agreement
UK	United Kingdom
VMS	Vessel Monitoring System

Contents

Tables

Figures

N

Dredge 2020 (UK vessels ≥15m)
First Sales Value
Total value, £
£0.02 - £5,000.00
£5,000.01 - £10,000.00
£10,000.01 - £25,000.00
£25,000.01 - £50,000.00
£50,000.01 - £75,000.00
£75,000.01 - £232,000.00

32E1 32E2 32E3 32E4 32E5 32E6
31E2 31E3 31E4 31E5 31E6
30E1 30E2 30E3 30E4 30E5 30E6
29E1 29E2 29E3 29E4 29E5 29E6
28E1 28E2 28E3 28E4 28E5 28E6
27E1 27E2 27E3 27E4 27E5 27E6
26E1 26E2 26E3 26E4

0 50,000 100,000 m

GSI, OceanWise, Esri, Garmin, NaturalVue, Esri UK, Esri, TomTom, Garmin, FAO, NOAA, USGS

Notes
1. This plan is scaled at paper size A3. If received electronically it is the recipients responsibility to print to the correct scale. Only written dimensions should be used.

Legend

- UK Offshore Cable Corridor
- Indicative Cable Centreline
- Commercial Fisheries Study Area
- ICES Statistical Rectangles
- UK Exclusive Economic Zone (EEZ)
- 6 NM Fishing Limit
- 12 NM Territorial Waters Limit

Rev	Description	By	CB	Date
P01	FINAL	FN	MB	21.10.24

Client: Xlinks 1 Limited

Project: Xlinks' Morocco-UK Power Project

Title: UK Dredge annual first sales value for UK vessels ≥ 15 m length, 2020

Status: FINAL

Scale @ A3: 1:1,200,000

Date Created: Nov 2024

Figure Number: **31**

Rev: **P01**

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N

Demersal Seine (EU and UK vessels ≥12m)

Average Annual Surface Swept Area Ratio (2016-2020)

- 0.0 - 0.6
- 0.7 - 1.3
- 1.4 - 1.9
- 2.0 - 2.6
- 2.7 - 3.2
- 3.3 - 3.9
- 4.0 - 4.5
- 4.6 - 5.1
- 5.2 - 5.8
- 5.9 - 6.4
- 6.5 - 7.1
- 7.2 - 7.7
- 7.8 - 8.4
- 8.5 - 9.0
- 9.1 - 46.8

32E1 32E2 32E3 32E4 32E5 32E6
31E2 31E3 31E4 31E5 31E6
30E2 30E3 30E4 30E5 30E6
29E1 29E2 29E3 29E4 29E5 29E6
28E1 28E2 28E3 28E4 28E5 28E6
27E1 27E2 27E3 27E4 27E5 27E6
26E1 26E2 26E3 26E4

0 50,000 100,000m

GSI, OceanWise, Esri, Garmin, NaturalVue, Esri UK, Esri, TomTom, Garmin, FAO, NOAA, USGS

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Rev	Description	By	CB	Date
P01	FINAL	FN	MB	21.10.24

Client: Xlinks 1 Limited

Project: Xlinks' Morocco-UK Power Project

Title: Demersal Seine Gear Fishing Intensity (Average: 2016-2020)

Status	Scale @ A3	Date Created
FINAL	1:1,200,000	Nov 2024

Figure Number: **32**

Rev: **P01**

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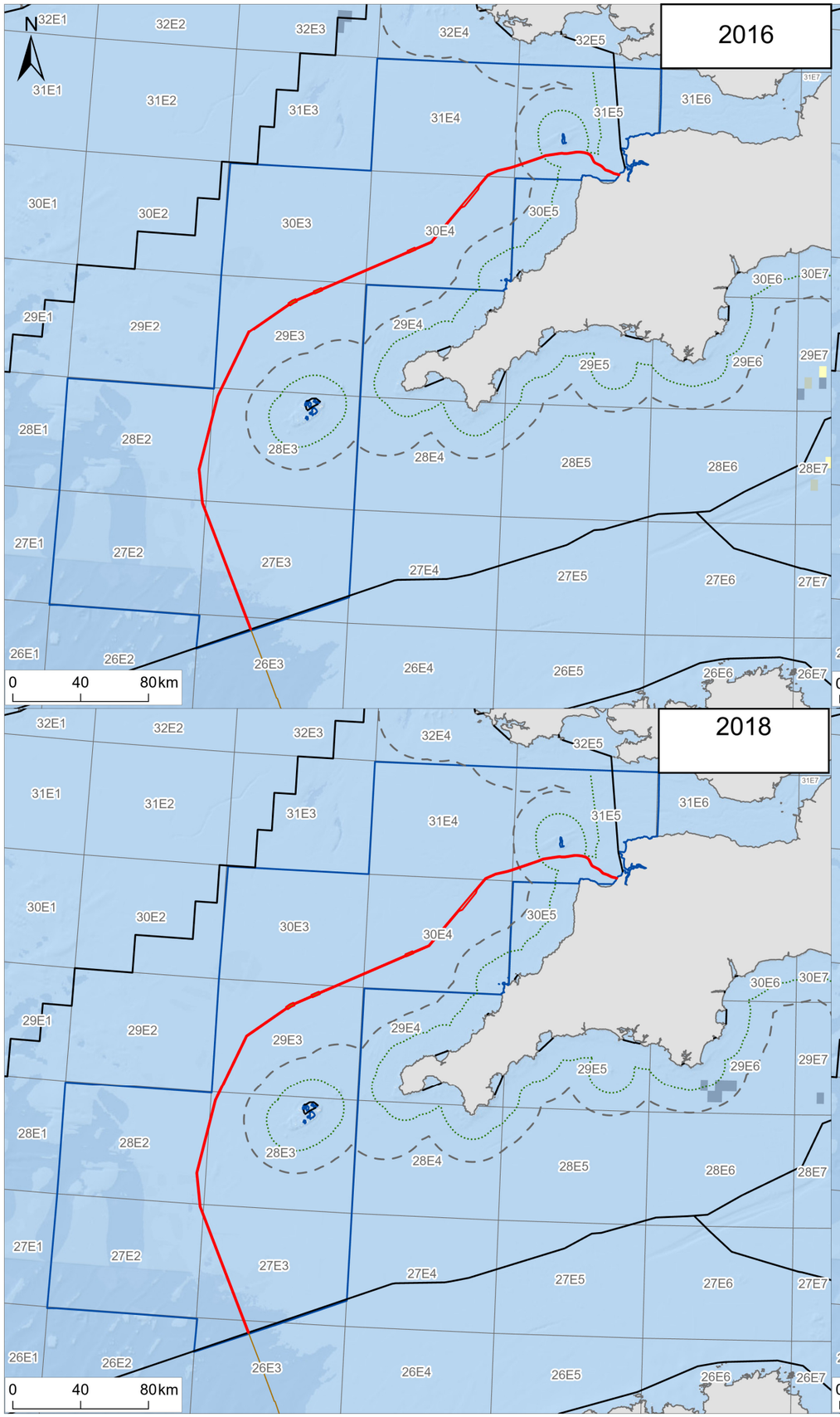

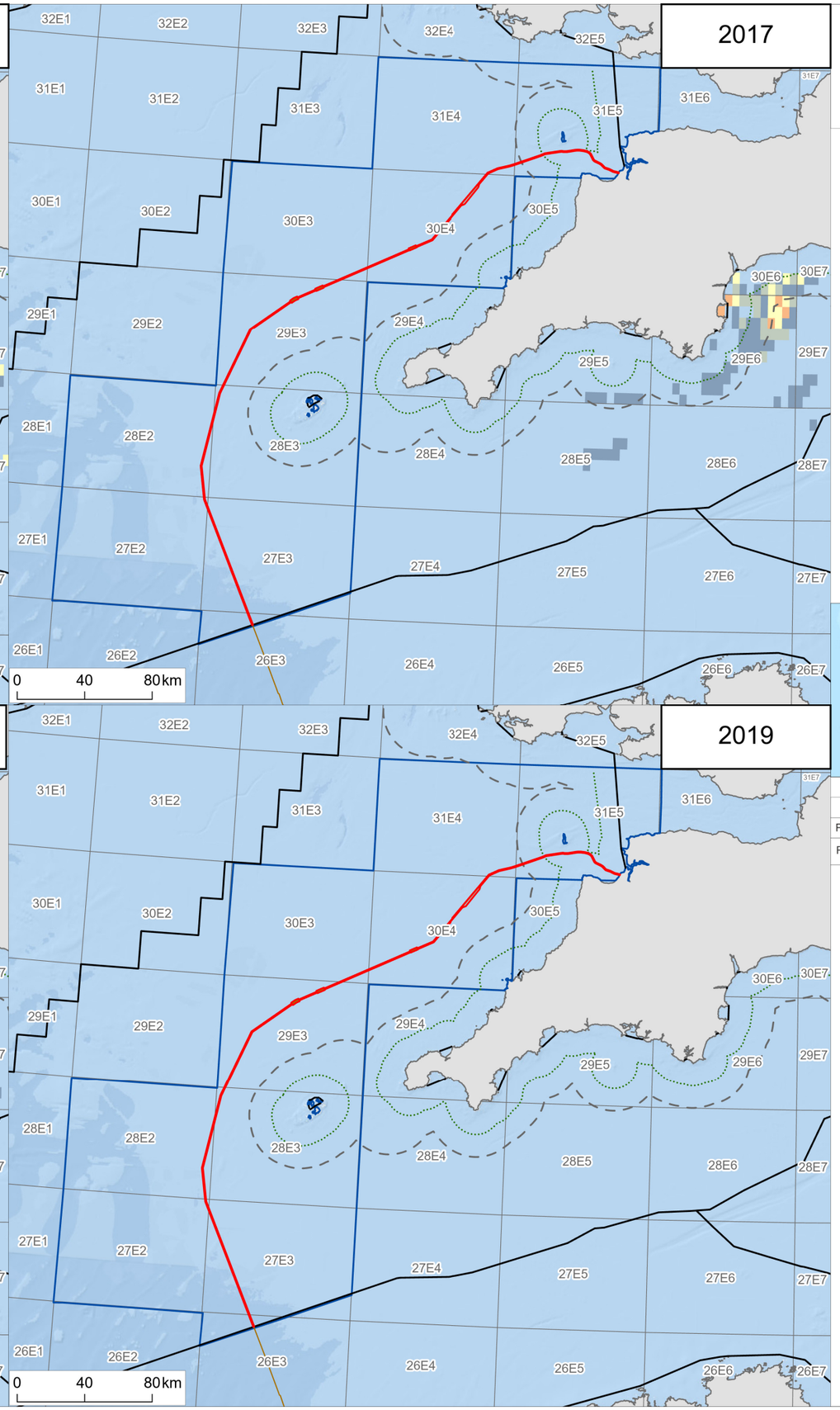

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Pelagic Trawl (UK vessels ≥15m)

Total value, £

- £0.02 - £5,000.00
- £5,000.01 - £10,000.00
- £10,000.01 - £25,000.00
- £25,000.01 - £50,000.00
- £50,000.01 - £75,000.00
- £75,000.01 - £242,000.00

Rev	Description	By	CB	Date
P01	FINAL	XX	XX	Nov 2024

Client: Xlinks 1 Limited

Project: Xlinks' Morocco-UK Power Project

Title: UK Pelagic trawl annual first sales value for UK ≥15m vessels

Status	Scale @ A3	Date Created
FINAL	1:3,000,000	Nov 2024

Figure Number: **33**

Rev: **P01**

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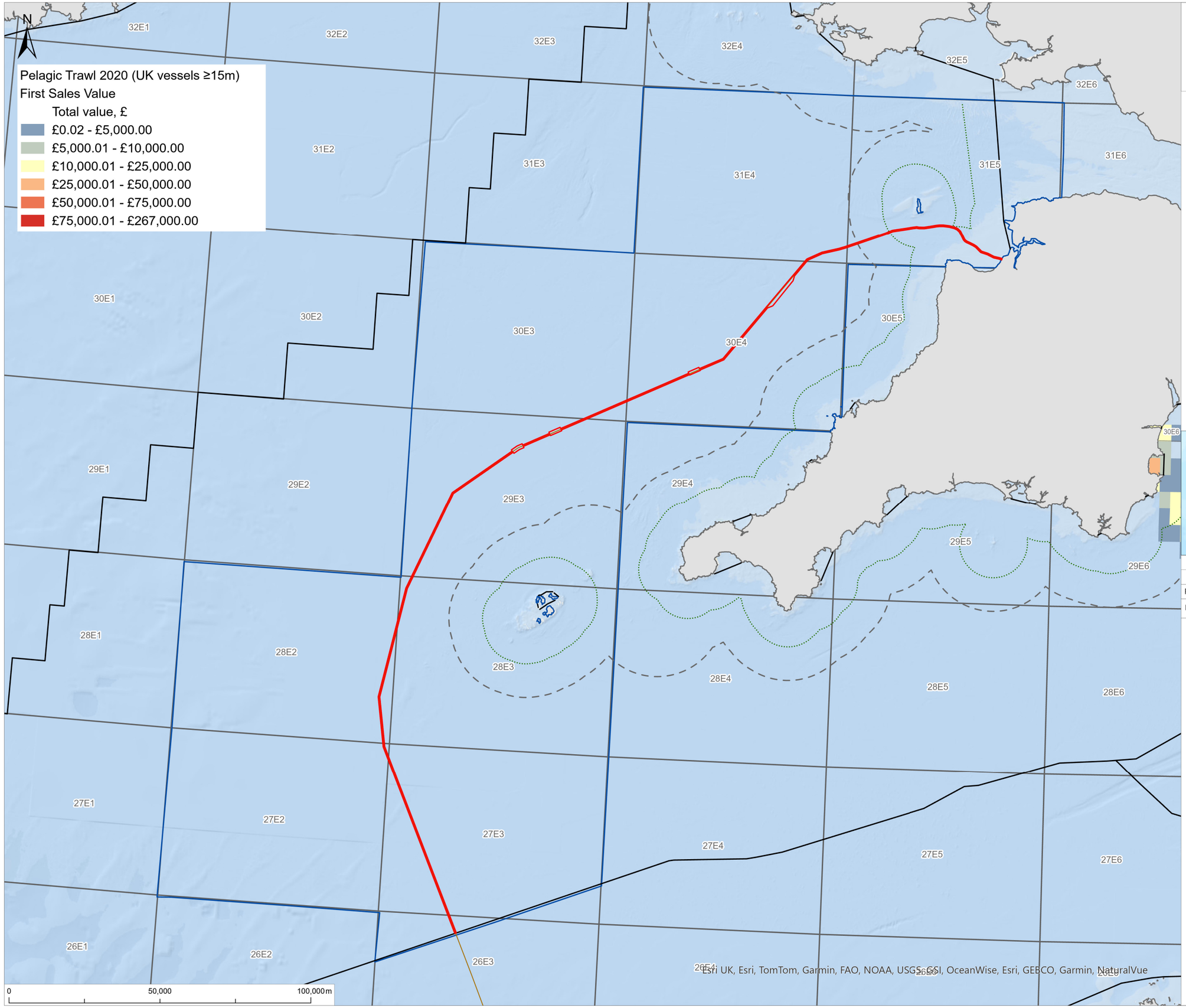

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Rev	Description	By	CB	Date
P01	FINAL	FN	MB	21.10.24

Client: Xlinks 1 Limited

Project: Xlinks' Morocco-UK Power Project

Title: UK Pelagic otter trawl annual first sales value for UK vessels ≥ 15 m length, 2020

Status	Scale @ A3	Date Created
FINAL	1:1,200,000	Nov 2024

Figure Number: **34**

Rev: **P01**

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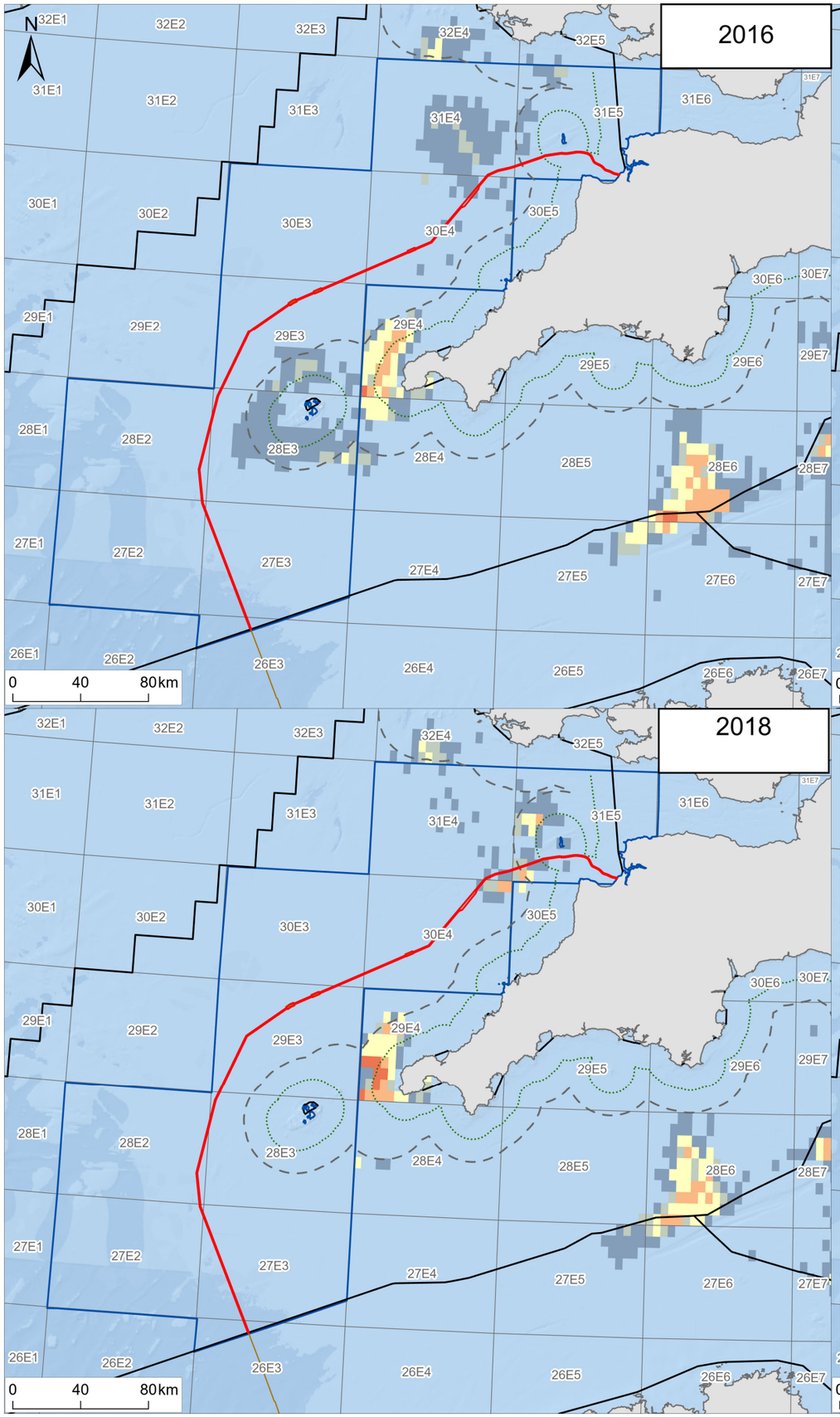

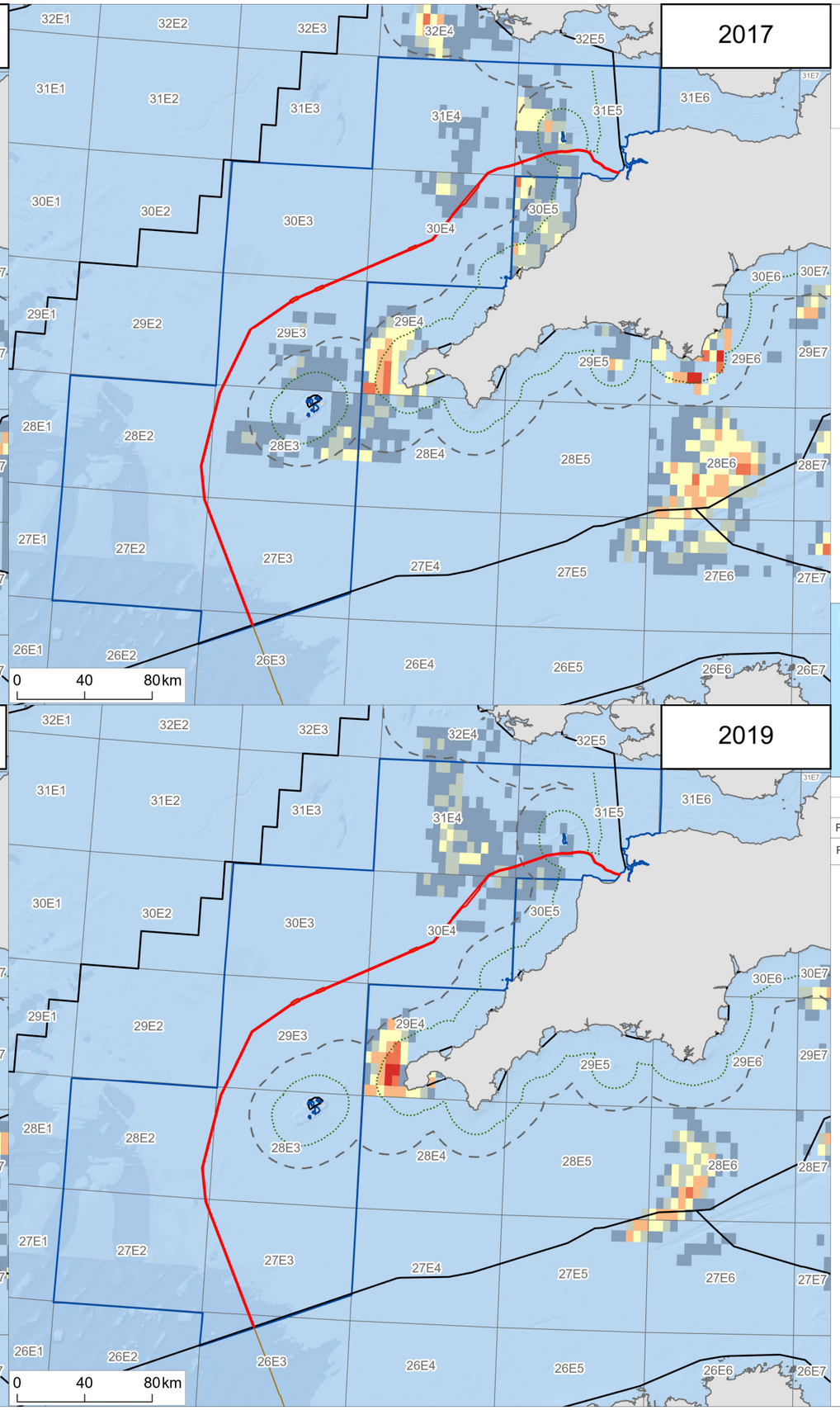

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- 12 NM Territorial Waters Limit

Potting (UK vessels ≥15m)

Total value, £

- £0.01 - £5,000.00
- £5,000.01 - £10,000.00
- £10,000.01 - £25,000.00
- £25,000.01 - £50,000.00
- £50,000.01 - £75,000.00
- £75,000.01 - £101,000.00

Rev	Description	By	CB	Date
P01	FINAL	XX	XX	Nov 2024

Xlinks

Client: Xlinks 1 Limited

Project: Xlinks' Morocco-UK Power Project

Title: UK Potting annual first sales value for UK ≥15m vessels

Status	Scale @ A3	Date Created
FINAL	1:3,000,000	Nov 2024

Figure Number: **35**

Rev: **P01**

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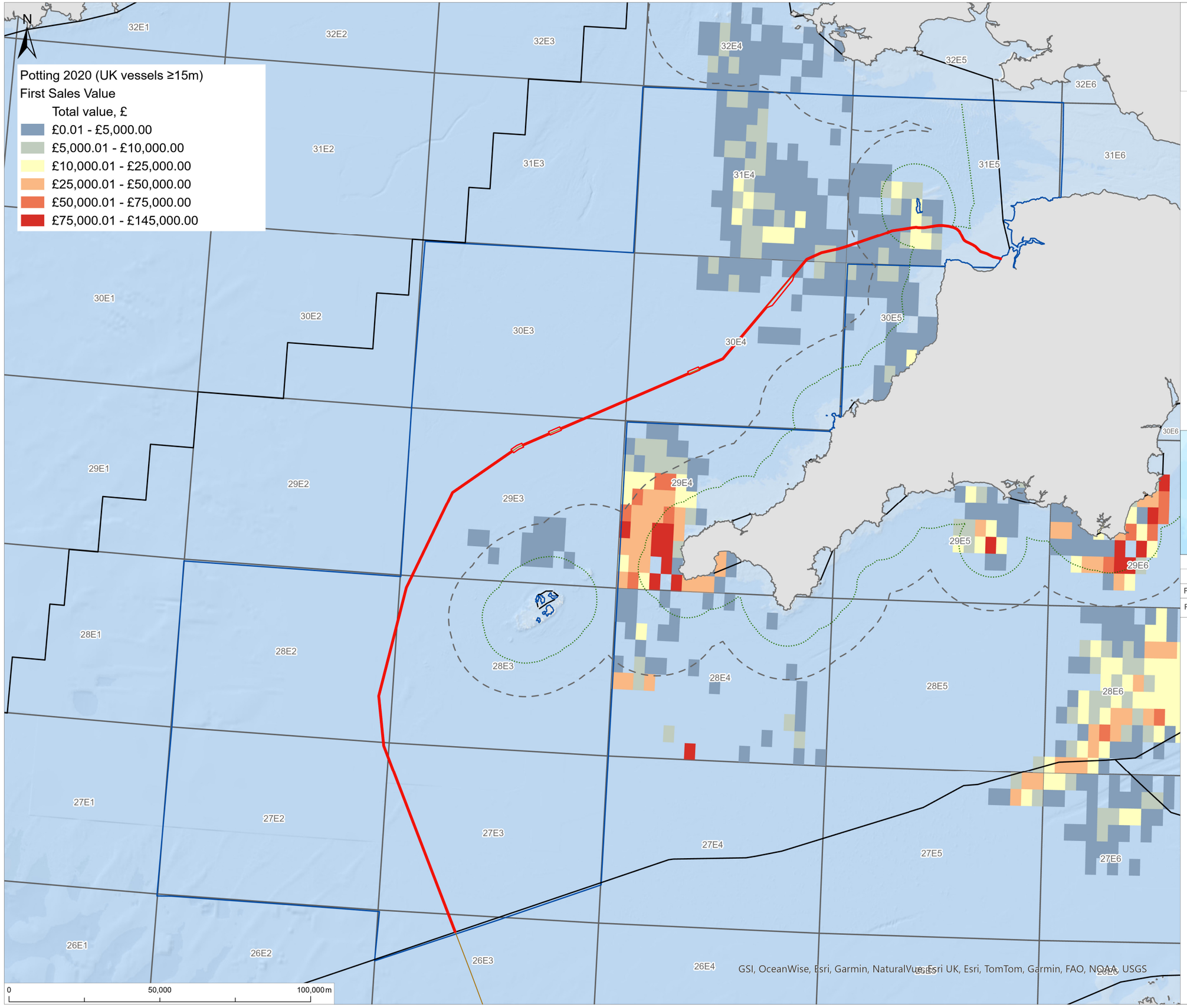

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Rev	Description	By	CB	Date
P01	FINAL	FN	MB	21.10.24

Client: Xlinks 1 Limited

Project: Xlinks' Morocco-UK Power Project

Title: UK Potting annual first sales value for UK vessels ≥ 15 m length, 2020

Status	Scale @ A3	Date Created
FINAL	1:1,200,000	Nov 2024

Figure Number: **36**

Rev: **P01**

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N

Fishing Vessel Route Density (2022)
(Routes per Square km per year)
- 0 - 10
- 11 - 20
- 21 - 30
- 31 - 40
- 41 - 50
- 51 - 100
- 101 - 150
- 151 - 200
- 201 - 250
- 251 - 16,363

32E1 32E2 32E3 32E4 32E5 32E6
31E2 31E3 31E4 31E5 31E6
30E1 30E2 30E3 30E4 30E5 30E6
29E1 29E2 29E3 29E4 29E5 29E6
28E1 28E2 28E3 28E4 28E5 28E6
27E1 27E2 27E3 27E4 27E5 27E6
26E1 26E2 26E3 26E4 26E5

0 50,000 100,000 m

GSI, OceanWise, Esri, Garmin, NaturalVue, Esri UK, Esri, TomTom, Garmin, FAO, NOAA, USGS

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Rev	Description	By	CB	Date
P01	FINAL	FN	MB	21.10.24

Client: Xlinks 1 Limited

Project: Xlinks' Morocco-UK Power Project

Title: Fishing vessel route density for EU and UK vessels with AIS, 2022

Status	Scale @ A3	Date Created
FINAL	1:1,200,000	Nov 2024

Figure Number: **37**

Rev: **P01**

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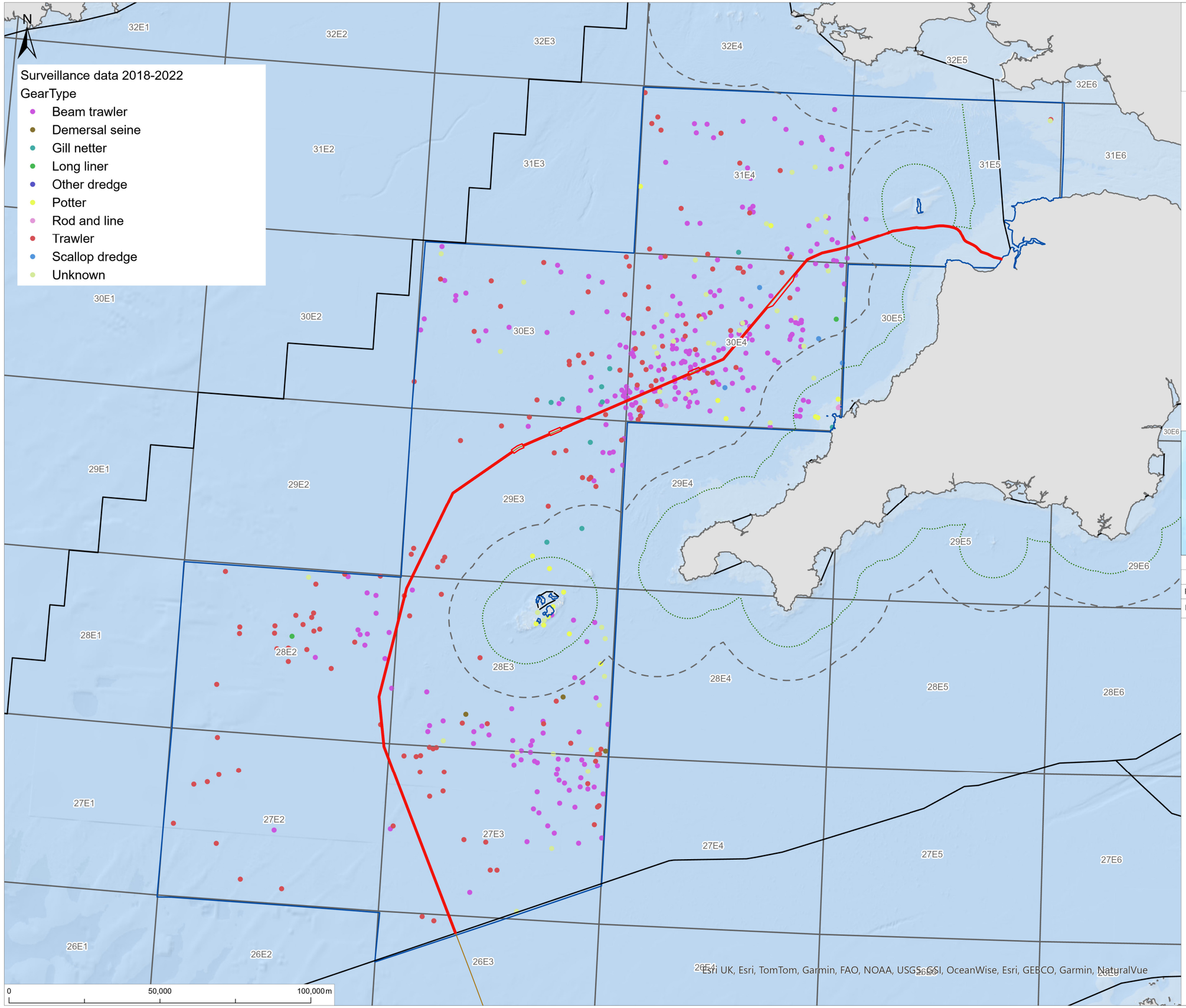

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Rev	Description	By	CB	Date
P01	FINAL	FN	MB	21.10.24

Xlinks

Client: Xlinks 1 Limited

Project: Xlinks' Morocco-UK Power Project

Title: Surveillance data by gear type 2018-2022

Status: FINAL

Scale @ A3: 1:1,200,000

Date Created: Nov 2024

Figure Number: **38**

Rev: **P01**

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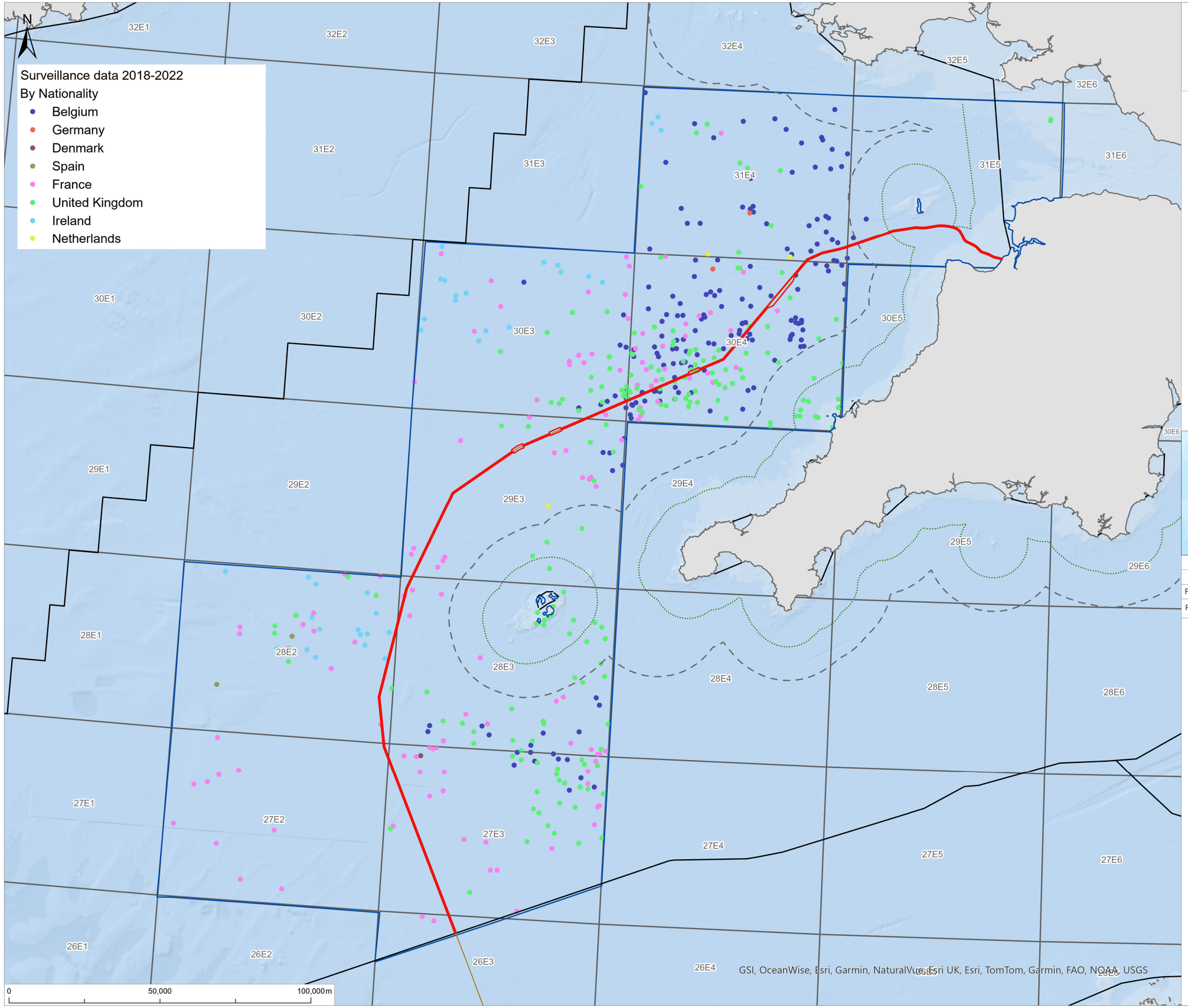

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Rev	Description	By	CB	Date
P01	FINAL	FN	MB	21.10.24

Client: Xlinks 1 Limited

Project: Xlinks' Morocco-UK Power Project

Title: Surveillance data by nationality 2018-2022

Status	Scale @ A3	Date Created
FINAL	1:1,200,000	Nov 2024

Figure Number: **39**

Rev: **P01**

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English[2] fisheries activity assessment

Landings trends, fishing grounds and key target species

1.3.52 The trends in landed value by English-registered vessels from the study area are presented in **Figure 40** for gear type and **Figure 41** for species.

1.3.53 English landings are dominated by vessels targeting flatfish with beam trawls, whitefish with nets and shellfish with pots and traps.

1.3.54 The average annual first sales value of English landings from the study area between 2018 and 2022 was approximately £13 million, with the highest landings values being associated with ICES rectangles 28E3 and 30E4.

1.3.55 Key target species include sole, with an annual average landings value for English vessels of £2.5 million, hake at £2 million, monkfish at £1.6million, brown crab at £1.1 million and lobster at £830,000. Landings of these species have shown some variation over the five-year time period, with landings of sole increasing substantially, landings of hake and monkfish showing a slight decline, and landings of brown crabs and lobsters remaining relatively consistent with the exception of a drop in landings in 2020 expected to reflect the effects of the COVID pandemic.

1.3.56 Based on the landings data presented here and spatial data presented above, English-registered vessels active in the study area are primarily targeting sole and other flatfish with beam trawls, hake and other whitefish with gill and trammel nets, and shellfish with pots and traps.

[2] Inclusive of Isles of Scilly

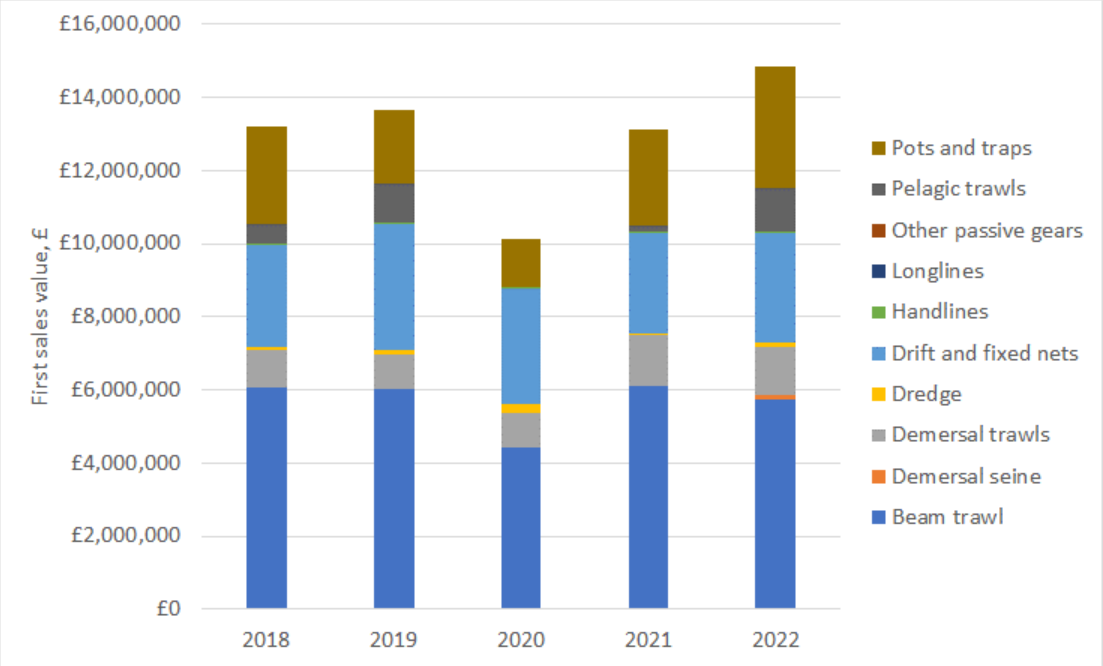

Figure 40: Landed value of all landings by English registered vessels from the study area indicating gear type (Data Source: MMO, 2023)

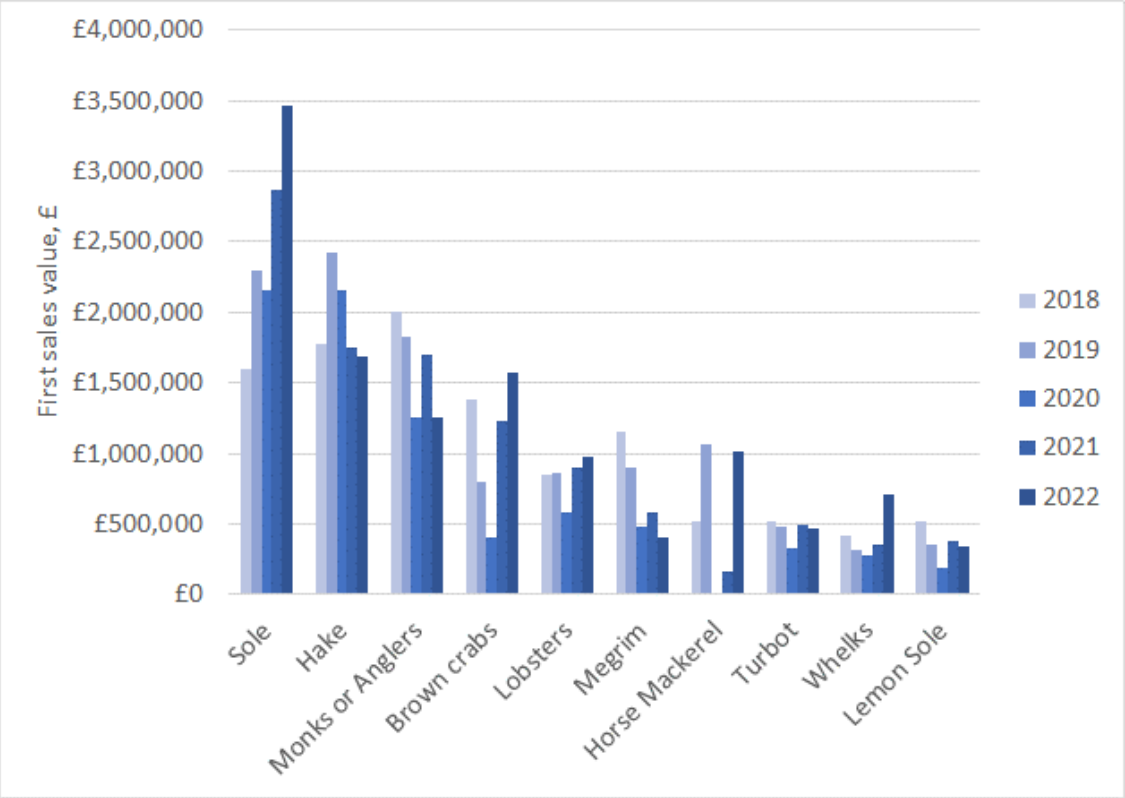

Figure 41: Landed value of all landings by English registered vessels from the study area indicating key species (Data Source: MMO, 2023)

Ports and vessel fleets

1.3.57 Vessels of a variety of sizes operate across the study area. Larger vessels of over 15 m length include beam and otter trawlers, scallop dredgers, and demersal

seine and pelagic trawl vessels. Smaller vessels of under 15 m length and working in inshore waters, typically within the 6 nautical mile limit, operate a wide variety of fishing gears, including pots, nets and lighter trawls.

1.3.58 The MMO provides 2022 landings statistics by port of landing attributed to specific ICES rectangles, allowing linkage of the location of fishing to the specific port the catch is landed into, as shown in **Figure 42**. Key English fleets targeting fisheries within the study area include beam trawlers and netting vessels landing into Newlyn and potting vessels landing to a wide variety of English ports.

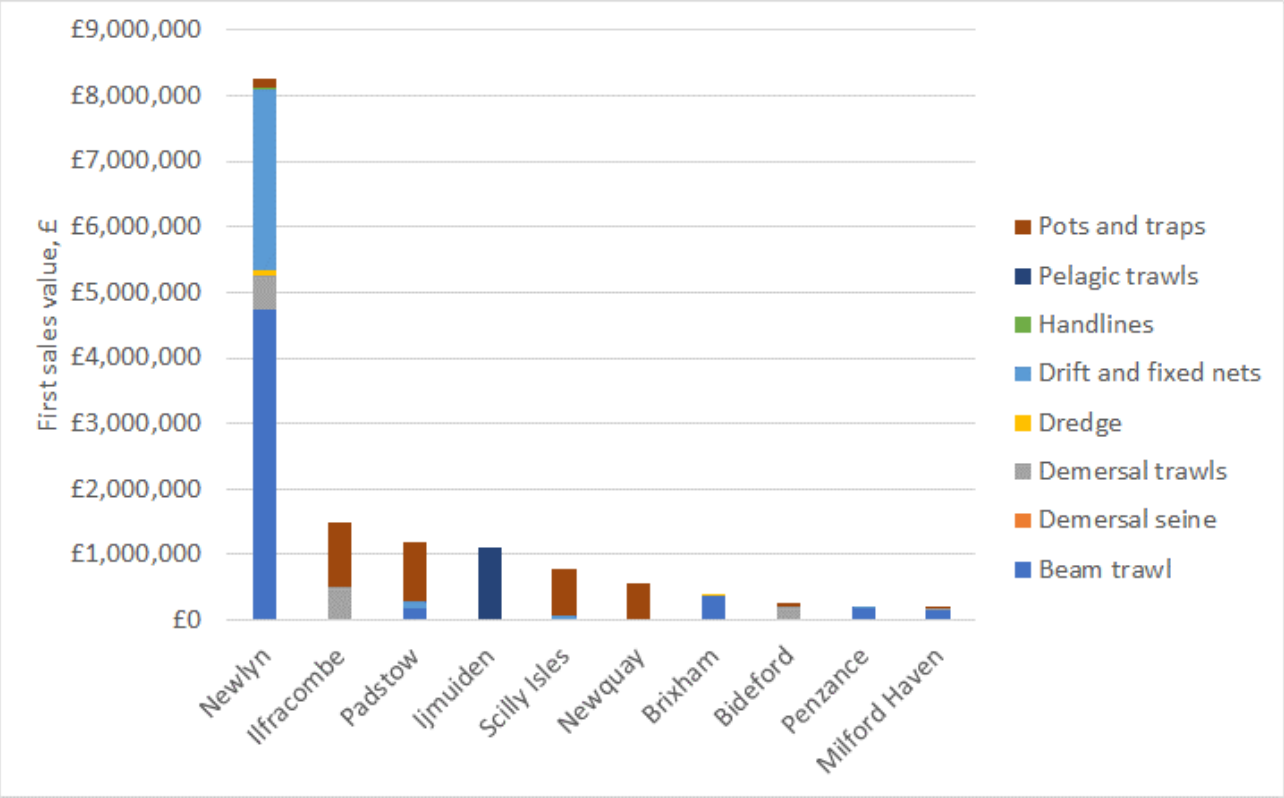

Figure 42: Landed value of all landings by English registered vessels from the study area indicating port of landing in 2022 (Data Source: MMO, 2023)

Scottish fisheries activity assessment

Landings trends, fishing grounds and key target species

1.3.59 The trends in landed value by Scottish-registered vessels from the study area are presented in **Figure 43** for gear type and **Figure 44** for species.

1.3.60 English landings are dominated by vessels targeting nephrops with demersal trawls and king scallop with dredges. Landings by Scottish vessels from the study area has an annual average value of £1.2 million across 2018 and 2019, but this substantially declined from 2020 onwards and across 2020 to 2022 averaged £96,000. This decline is largely accounted for by a decline in landings of nephrops.

1.3.61 Landings of scallops by Scottish vessels have fluctuated across the period 2018 to 2022, peaking in 2019 with a landed value of £320,000 (the average annual value across the five-year period is £100,000). This variation in landings may be a reflection of the cyclical pattern in scallop stocks and associated fishing activity, with good grounds considered to rotate during a cycle across several years.

1.3.62 Based on the landings data presented here and spatial data presented above, Scottish-registered vessels active in the study area are primarily targeting scallops with dredges. Demersal trawl activity may also be present in the study area but has declined notably across the five-year study period.

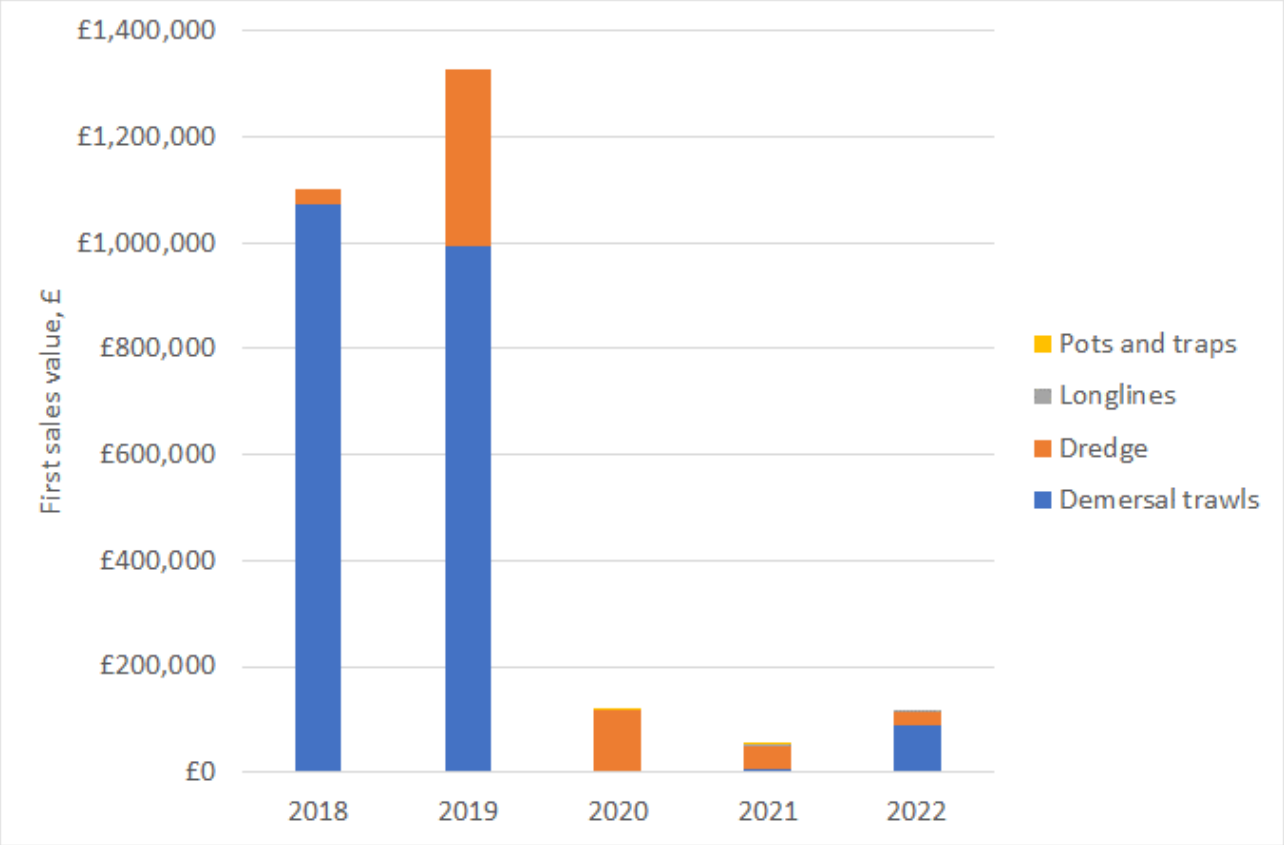

Figure 43: Landed value of all landings by Scottish registered vessels from the study area indicating gear type (Data Source: MMO, 2023)

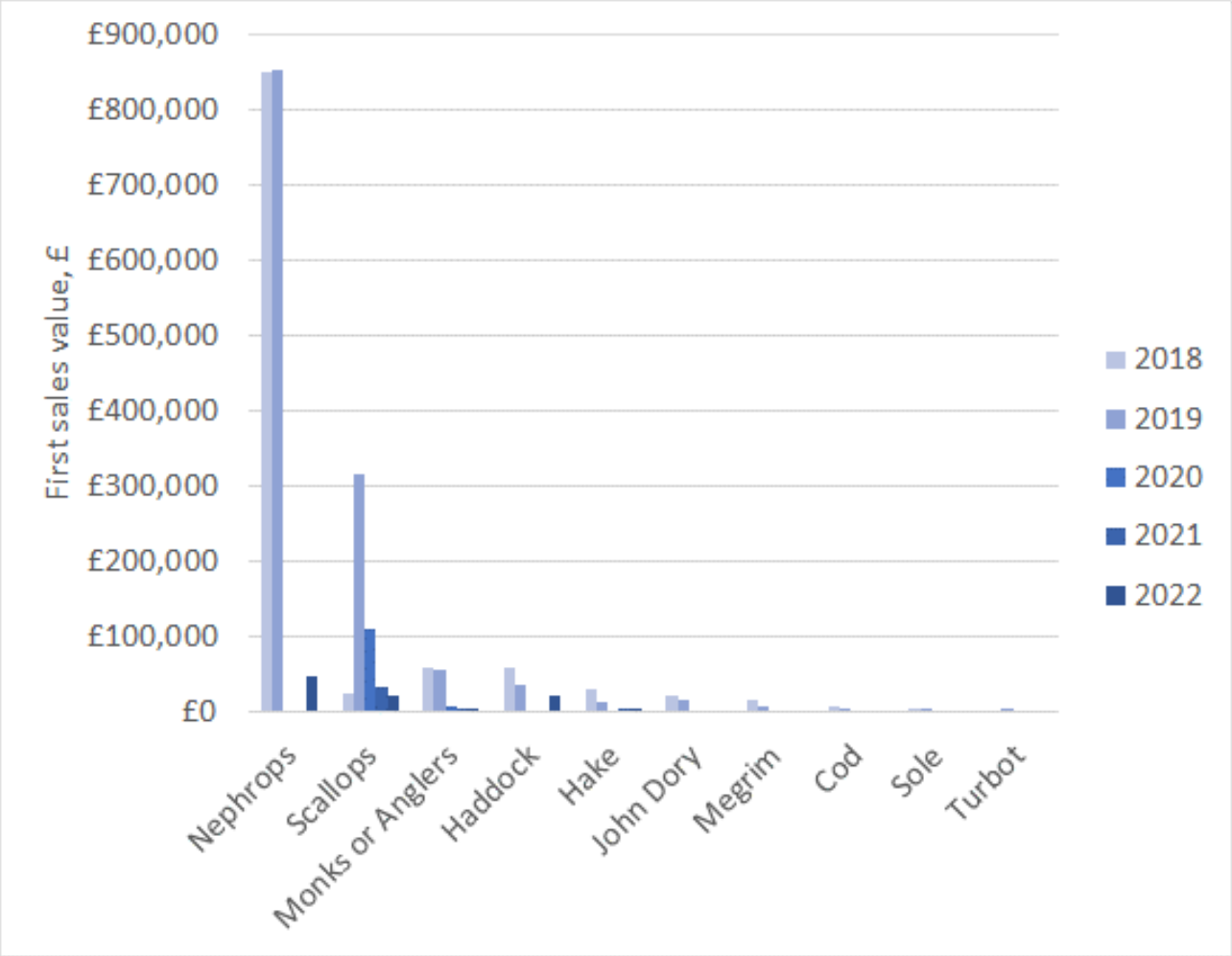

Figure 44: Landed value of all landings by Scottish registered vessels from the study area indicating key species (Data Source: MMO, 2023)

Ports and vessel fleets

1.3.63 Scottish vessels active in the study area are over 24 m length and include demersal otter trawlers and dredge vessels.

1.3.64 The MMO provides 2022 landings statistics by port of landing attributed to specific ICES rectangles, allowing linkage of the location of fishing to the specific port the catch is landed into, as shown in **Figure 45**. Key Scottish fleets targeting fisheries within the study area include demersal trawlers landing into Newlyn and Peterhead, and scallop dredgers that will form part of the UK nomadic scallop fleet, landing into Newlyn and Brixham.

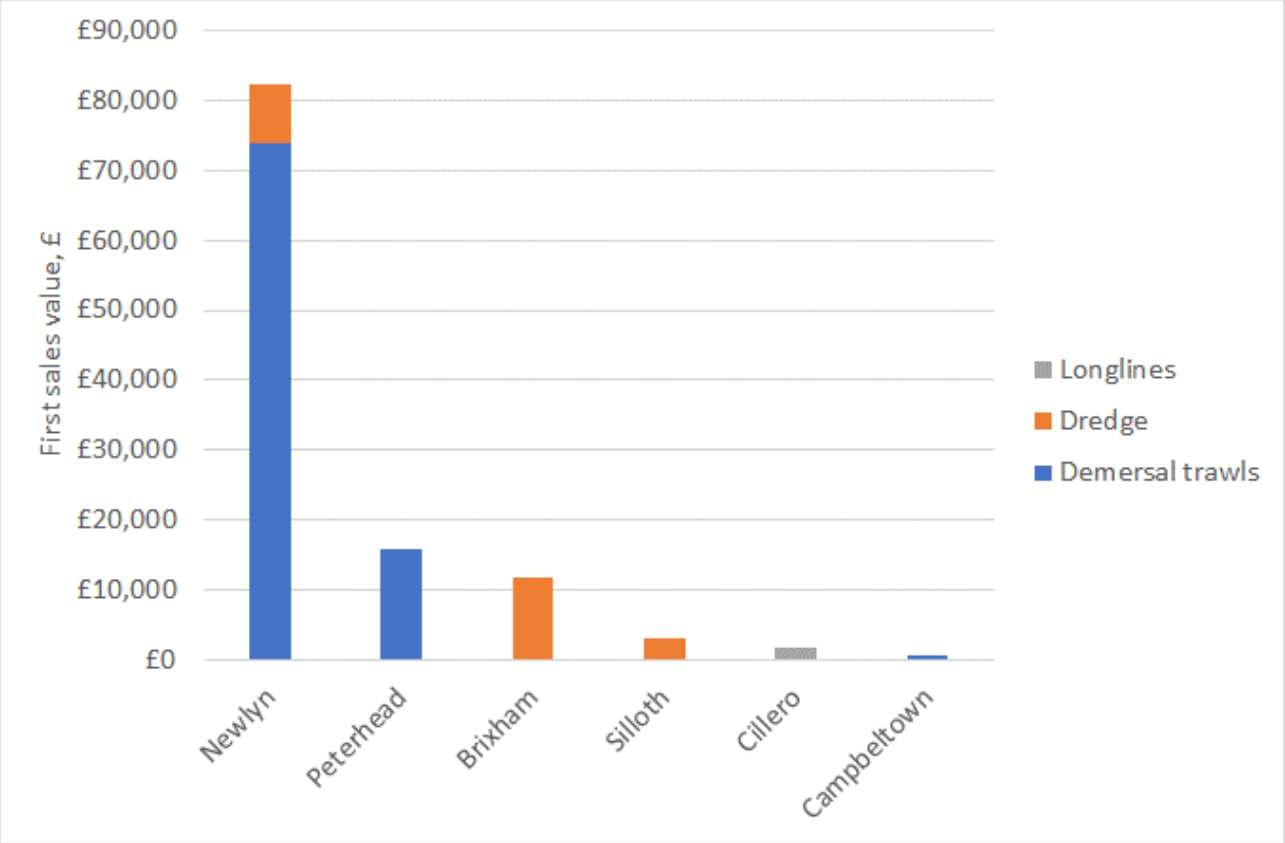

Figure 45: Landed value of all landings by Scottish registered vessels from the study area indicating port of landing in 2022 (Data Source: MMO, 2023)

Welsh fisheries activity assessment

Landings trends, fishing grounds and key target species

1.3.65 The trends in landed value by Welsh-registered vessels from the study area are presented in **Figure 46** for gear type and **Figure 47** for species.

1.3.66 Welsh landings are dominated by vessels targeting shellfish, and particularly whelk and brown crab, with pots and traps.

1.3.67 The average annual first sales value of Welsh landings from the study area between 2018 and 2022 was approximately £570,000, with the highest landings values being associated with ICES rectangles 31E5 and 31E4, with limited landings from other parts of the study area.

1.3.68 Whelk had an annual average landings value for Welsh vessels of £370,000, lobsters of £110,000 and sole of £30,000. Landings of these species have shown some variation over the five-year time period, generally being at their peak in 2018, lowest in 2020 (expected to reflect the effects of the COVID pandemic) and slowly increasing through 2021 and 2022, though not to 2018 or 2019 levels.

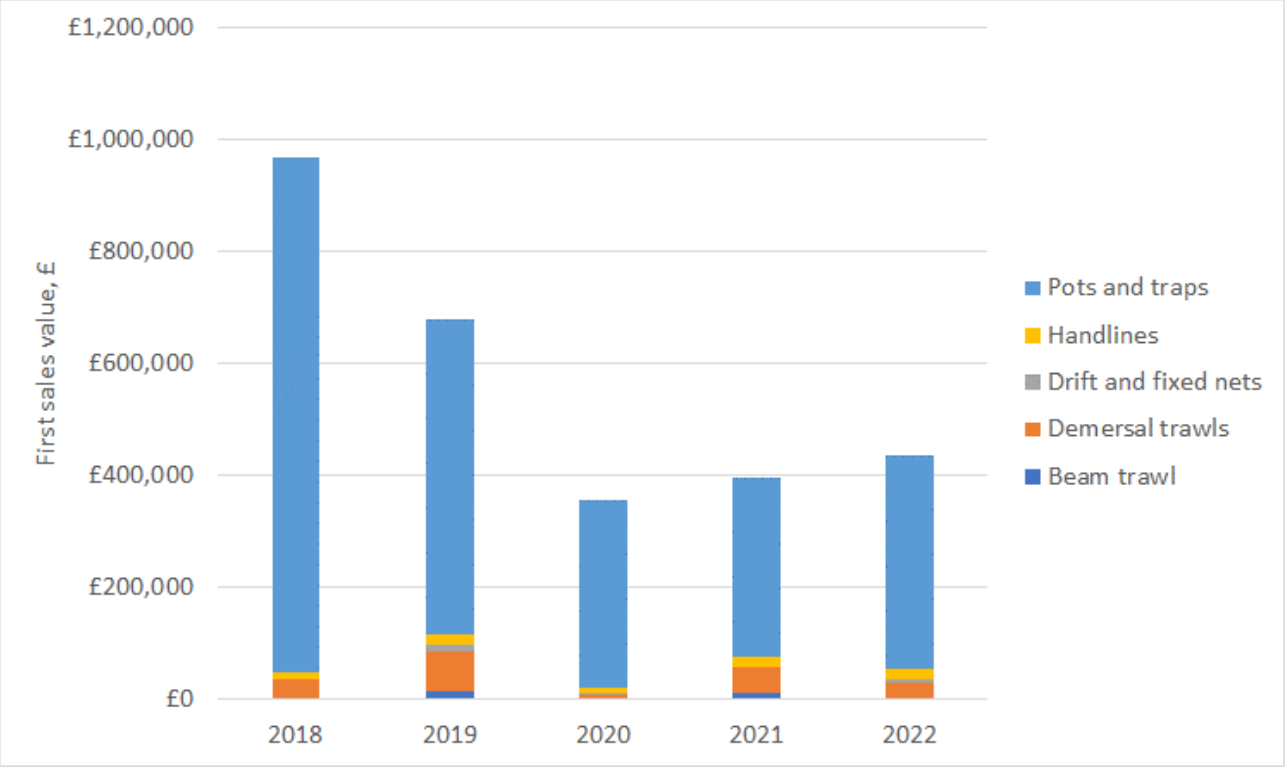

Figure 46: Landed value of all landings by Welsh registered vessels from the study area indicating gear type (Data Source: MMO, 2023)

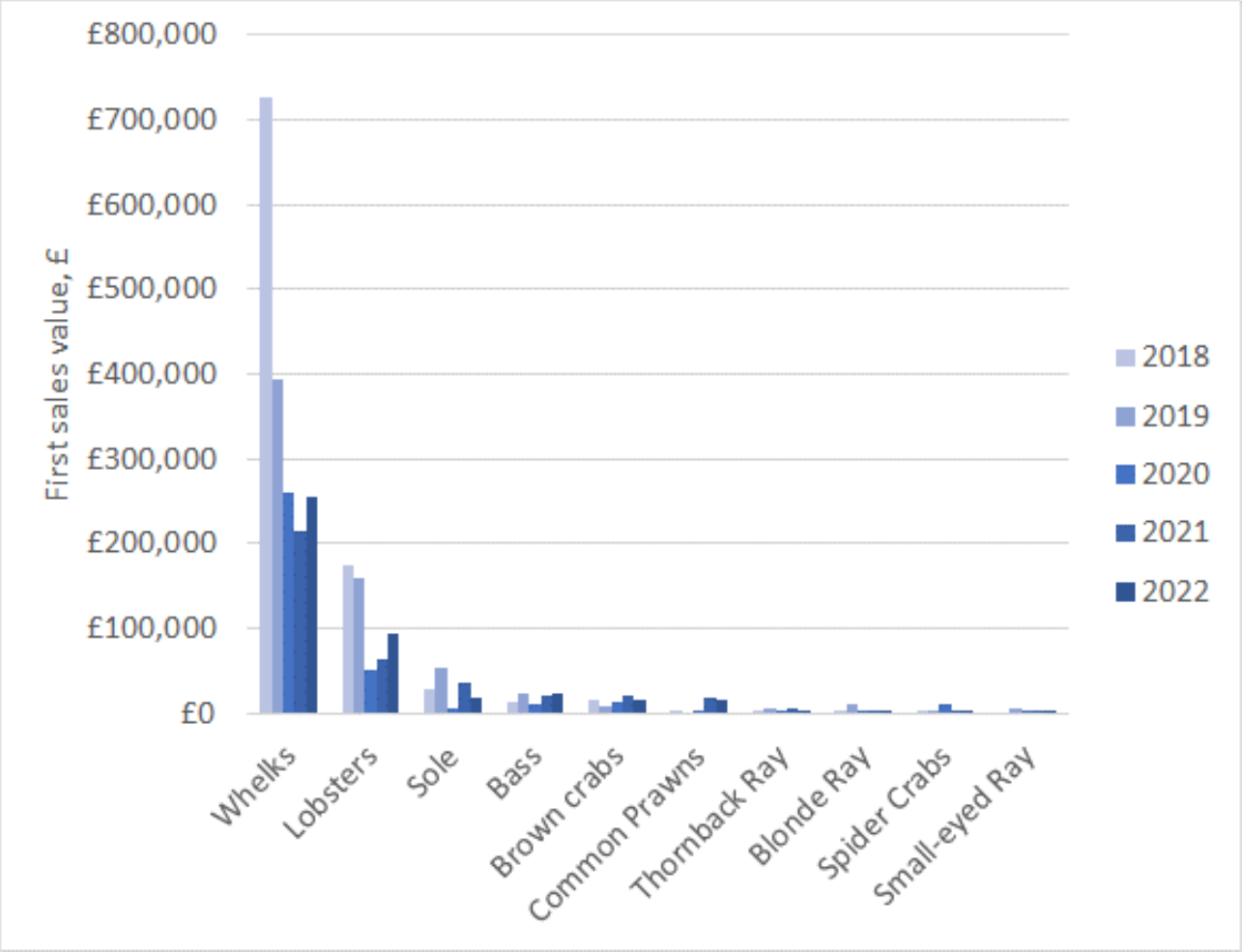

Figure 47: Landed value of all landings by Welsh registered vessels from the study area indicating key species (Data Source: MMO, 2023)

Ports and vessel fleets

1.3.69 Welsh vessel active in the study area are under 12 m length, operating primarily in inshore waters.

1.3.70 The MMO provides 2022 landings statistics by port of landing attributed to specific ICES rectangles, allowing linkage of the location of fishing to the specific port the catch is landed into, as shown in **Figure 48**. Welsh fleets active in the study area land shellfish to Saundersfoot and Milford Haven. Data indicates some demersal trawl activity, with those vessels landing sole to Swansea, and line-caught bass being landed to Swansea and Burry Port.

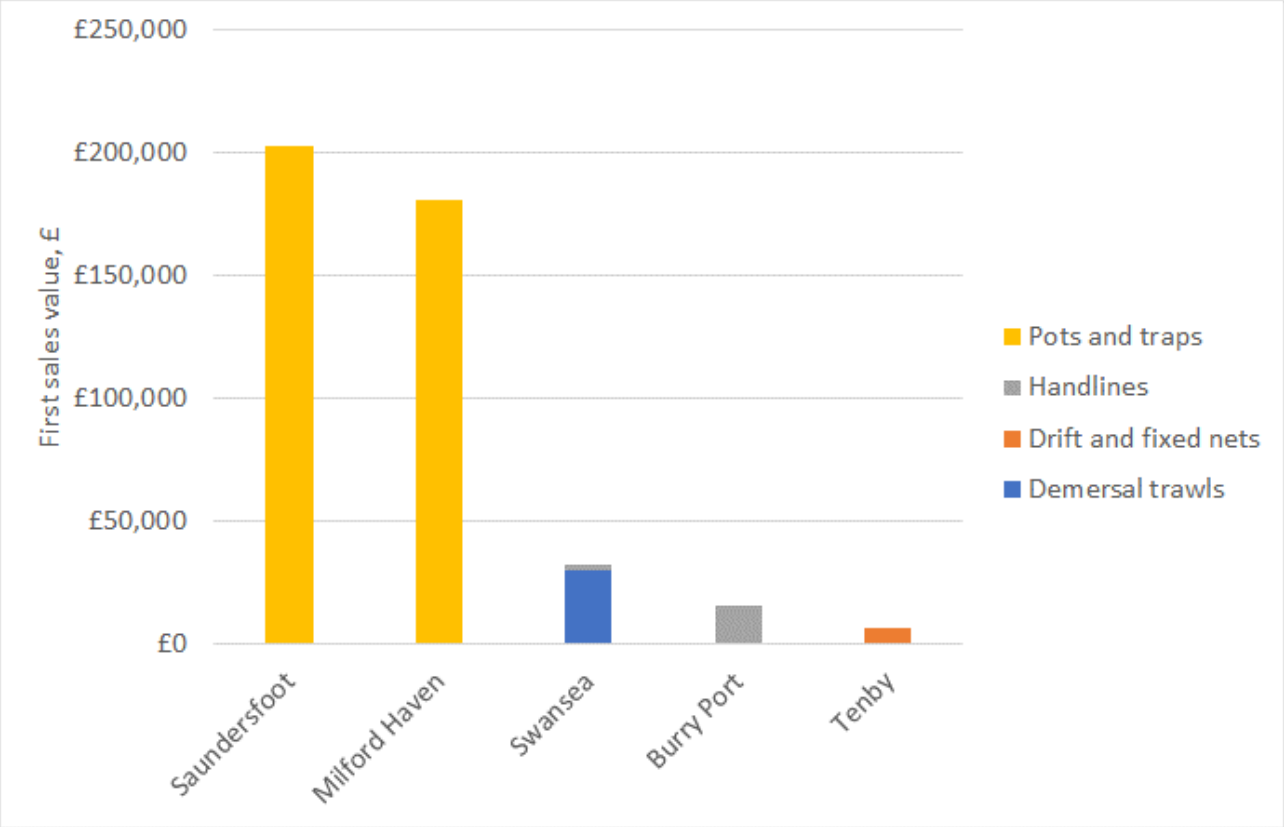

Figure 48: Landed value of all landings by Welsh registered vessels from the study area indicating port of landing in 2022 (Data Source: MMO, 2023)

Non-UK fisheries activity assessment

1.3.71 Landings from the commercial fisheries study area by EU-registered vessels have been analysed using data sourced from the EU DCF and is described in **section 1.3** above, thus not repeated here.

1.3.72 Landings data, in addition to MMO surveillance data and spatial VMS data, indicates the likely presence of:

- Belgian beam trawlers targeting sole, plaice and other mixed demersal fish species;
- French demersal otter trawlers targeting a wide variety of species including cuttlefish, squid, mullets, sole and gurnards; and
- Irish demersal otter trawlers and beam trawlers targeting a variety of species including anglerfish, john dory and rays.

1.3.73 The Belgian fleet active across the Celtic Sea is understood to consist of about 30 active vessels (ICES, 2022). The majority of the vessels are > 24 m, while the remainder of the vessels are between 18 and 24 m. The Belgian fleet are beam trawlers.

1.3.74 The French offshore fishery in the Celtic Sea is mostly composed of bottom trawlers (18–35 m, around 350 vessels) targeting gadoids, Norway lobster or anglerfish, megrim, and rays. Two large pelagic trawlers target herring and mackerel, and one is also involved in the blue whiting fishery (ICES, 2022).

1.3.75 The Irish fishing fleet is very diverse with around 1500 < 10 m and 500 ≥ 10 m active vessels. The vessels ≥ 10 m target a wide variety of species using several types of gear. Vessels in the 12 to 25 m length range target Norway lobster using trawls on several grounds. Both inshore and offshore mixed demersal fisheries use trawls and seine nets to target gadoids and benthic species. Ten beam trawlers target benthic species such as megrim, anglerfish, flatfish, and rays (ICES, 2022). Relative to levels of Belgian and French fishing vessel activity, Irish vessel activity in the study area is relatively lower.

Future Baseline Assessment

1.3.76 From the point of assessment, over the course of the development and operational lifetime of the Project, long-term trends mean that the condition of the baseline environment is expected to evolve. Commercial fisheries patterns change and fluctuate based on a range of natural and management-controlled factors. This includes the following:

- Market demand: commercial fishing fleets respond to market demand, which is impacted by a range of factors, an example being the COVID pandemic;
- Market prices: commercial fishing fleets respond to market prices by focusing effort on higher value target species when prices are high and markets in demand;
- Stock abundance: fluctuation in the biomass of individual species stocks in response to status of the stock, recruitment, natural disturbances (e.g., due to storms, sea temperature etc.), changes in fishing pressure etc.;
- Fisheries management: including new management for specific species where overexploitation has been identified, or changes in Total Allowable Catches leading to the relocation of effort, and/or an overall increase/decrease of effort and catches from specific areas;
- Environmental management: including the potential restriction of certain fisheries within protected areas;
- Improved efficiency and gear technology: with fishing fleets constantly evolving to reduce operational costs e.g., by moving from beam trawl to demersal seine; and
- Sustainability: with seafood buyers more frequently requesting certification of the sustainably of fish and shellfish products, such as the Marine Stewardship Council certification, industry is adapting to improve fisheries management and wider environmental impacts.

1.3.77 The variations and trends in commercial fisheries activity are an important aspect of the baseline assessment and forms the principal reason for considering up to five years of key baseline data. Given the time periods assessed, the future baseline scenario would typically be reflected within the current baseline assessment undertaken. However, in this case, existing baseline data do not capture all potential changes in commercial fisheries activity, as described below.

1.3.78 Following the withdrawal of the UK from the EU, the UK and the EU have agreed to a Trade and Cooperation Agreement (TCA), applicable on a provisional basis from 1 January 2021. The TCA sets out fisheries rights and confirms that from 1 January 2021 and during a transition period until 30 June 2026, UK and EU vessels will continue to access respective Exclusive Economic Zones (EEZs, 12-

200 nm) to fish. In this period, EU vessels will also be able to fish in specified parts of UK waters between 6-12 nm.

1.3.79 25% of the EU's fisheries quota in UK waters will be transferred to the UK over the five-year transition period; most of this quota has already been transferred and distributed across the four nations of the UK. After the five-year transition there will be annual discussions on fisheries opportunities. Across the study area, UK fisheries target both quota and non-quota shellfish species. Where fleets target non-quota species (e.g. the potting fleet targeting shellfish), it is expected that fleets are unlikely to be impacted by quota transfers. It is possible that UK vessels will seek to exploit additional quota-species opportunities, but vessels would need to access quota holdings. Based on changes in quota allocation, it could be expected that between 2021 and 2026, UK vessels could be catching relatively more quota species, with EU fleets catching relatively less. In summary, levels of fishing activity within the study area are likely to remain consistent with the current baseline but be undertaken in a slightly greater proportion by UK vessels.

1.3.80 In relation to EU access to UK territorial waters, provision has been made for EU vessels with a track record of fishing between 6 nm and 12 nm to be issued with licences to continue fishing. This licencing process is ongoing, and it is unknown how many EU vessels this is applicable to. Therefore, fishing activity within the study area is likely to remain consistent with the current baseline in terms of the fleets and Member States in operation.

1.3.81 Market changes have the potential to impact fishing activity in the study area; some of the catch landed by UK vessels is exported to EU markets (e.g., brown crab) and potential tariff/non-tariff barriers could affect which species are targeted and to what extent. One of the key species landed by potters in the area, is whelk, which is primarily exported to non-EU countries, including Korea, Taiwan and Singapore. The trade in UK landed whelk has therefore not been as affected by the Brexit process and associated implications on shellfish exports in comparison to other species. In terms of future baseline scenarios, it is therefore possible, for example, that the UK fleet will more heavily target whelk given that prices have increased in recent years, and they are exported to non-EU countries.

1.3.82 In relation to the effects of the COVID pandemic, MMO annual reporting notes that the effects of the pandemic on the UK fishing industry were felt from March 2020. The MMO UK Sea Fisheries Statistics 2021 report observes that an increase in overall UK landings quantity and value in 2021 (relative to 2020) largely reflected recovery from the COVID period and additional quota available to the UK fleet after leaving the EU (MMO, 2022).

1.3.83 Commercial fisheries receptors (i.e., relevant fishing fleets) could theoretically be impacted by climate change over the lifetime of the Proposed Development. Climate change is expected to increase storminess and water temperatures. Unsettled weather and increased storminess (for example, increased wave heights and strong winds) reduce the number of days on which vessels can safely operate at sea, particularly during winter months when storms are more prevalent. Water temperature increases may alter the distribution and movement of fish species, meaning some species that an industry relies on may reduce in numbers, while different species may become more prevalent. The operational challenges presented by unsettled weather as a result of climate change often present a greater risk for smaller vessels, which are less able to fish in stormy seas. Smaller vessels are more restricted in the distance they can travel, meaning they are less able to adapt to changes in fish distributions than larger vessels with a greater range.

1.4 Summary

1.4.1 The key commercial fishing fleets identified as operating across the study area, and which are to be considered within the EIA process, are shown in **Table 1.10**. The UK inshore fishing fleet comprised primarily of vessels of 10 m length and under are adaptable and can be expected to switch between gear types and fishing grounds in response to several factors including market prices and fishing restrictions. The inshore fleet is captured within **Table 1.10**, and forms part of the UK netting, potting and trawl fleets.

Table 1.10: Key commercial fishing fleets active in the study area

Receptor	Description
UK beam trawl fleet	UK-registered vessels primarily targeting sole, monkfish and other flatfish
UK netting fleet	UK-registered vessels primarily targeting hake and other whitefish
UK potting fleet	UK-registered vessels primarily targeting brown crab, lobster and whelk
UK demersal trawl fleet	UK-registered vessels primarily targeting Nephrops, sole and other flatfish
UK pelagic trawl fleet	UK-registered vessels primarily targeting horse mackerel
UK dredge fleet	UK-registered vessels primarily targeting king scallop
EU beam trawl fleet	Primarily Belgian-registered vessels, and some Irish-registered vessels, targeting mixed fish species including anglerfish, brill and pouting
EU demersal trawl fleet	Primarily French-registered vessels targeting mixed demersal fish species, and also some Belgian-registered vessels and Irish-registered vessels (the latter also targeting Nephrops)
EU pelagic trawl fleet	French-registered vessels targeting mixed fish species

1.5 References

Cefas (2023). Assessment of king scallop stock status for selected waters around the English coast 2021/2022. CP017-04-F5 Cefas Report Template (publishing.service.gov.uk)

Cefas (2024). Assessment of king scallop stock status for selected waters around the English coast 2023. CP017-04-F5 Cefas Report Template (publishing.service.gov.uk)

European Commission, COUNCIL REGULATION (EU) 2023/194 of 30 January 2023 fixing for 2023 the fishing opportunities for certain fish stocks, applicable in Union waters and, for Union fishing vessels, in certain non-Union waters, as well as fixing for 2023 and 2024 such fishing opportunities for certain deep-sea fish stocks.

European Maritime Safety Agency (EMSA). (2022). Integrated Maritime Services Automatic identification system (AIS) data for EU fishing vessels from 2019 to 2022 indicating route density per km per annual period.

European Union Data Collection Framework (EU DCF) database. Data by quarter-rectangle: Tables and maps of effort and landings by ICES statistical rectangles for 2012 to 2016.

ICES (2022). Celtic Seas ecoregion – fisheries overview. ICES Advice: Fisheries Overviews. Report. https://doi.org/10.17895/ices.advice.21641312.v1

International Council for the Exploration of the Sea (ICES). EU-registered vessel VMS data for vessels ≥12m length for 2016 to 2020.

Marine Management Organisation (MMO) (2022). Vessel Monitoring System data for non-UK registered vessels for 2016 to 2019 indicating hours fishing for mobile and static vessels to a resolution of 200th of an ICES rectangle.

Marine Management Organisation (MMO) (2023). Vessel Monitoring System data for non-UK registered vessels for 2020 indicating hours fishing for mobile and static vessels to a resolution of 200th of an ICES rectangle.

Marine Management Organisation (MMO), (2023). IFISH database with landing statistics data for UK registered vessels for 2018 to 2022 with attributes for: landing year; landing month; vessel length category; country code; ICES rectangle; vessel/gear type; species; live weight (tonnes); and value; and landing year; landing month; vessel length category; country code; vessel/gear type; port of landing; species; live weight (tonnes); and value.

Marine Management Organisation (MMO), (2023). Fishing vessel surveillance data for 2018 to 2022.

Marine Traffic. Accessed at https://www.marinetraffic.com/

Seafish Kingfisher Information Service. UK Fishing Restrictions. Accessed at https://kingfisherrestrictions.org/

Seafish. (2015). Basic fishing methods. A comprehensive guide to commercial fishing methods.