Marine Management Organisation

UK Sea Fisheries Statistics 2016

UK SEA FISHERIES STATISTICS 2016

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This document is available on the MMO website.

Contents

Statistical tables and charts

List of tables

List of tables (continued)

All tables presented here are available to download from the MMO website at https://www.gov.uk/government/collections/uk-sea-fisheries-annual-statistics

List of charts

List of charts (continued)

List of charts (continued)

Supplementary tables

The following supplementary tables showing more detail are available for download from the MMO website at https://www.gov.uk/government/collections/uk-sea-fisheries-annual-statistics.

1.2	Summary of UK fishing industry: 2006 to 2016
2.2a	UK fishing fleet by administration port: 2014 to 2016
2.3a	UK fishing fleet by vessel length and administration port: 2016
2.4a	Age of UK vessels by administration port: 2016
2.4b	Age of UK vessels (10m and under) by administration port: 2016
2.4c	Age of UK vessels (over 10m) by administration port: 2016
2.6a	Number of fishermen: 1938 to 2016
2.6b	Number of fishermen by administration port: 2015 to 2016
2.11	Days at sea for the over 10m UK fishing fleet: 2002 to 2016
2.12	EU fishing fleet by vessel length and Member State: 2016
3.1a	Percentage of landings into the UK and abroad by UK vessels: 2012 to 2016
3.8a	Landings into the UK and abroad by UK vessels by ICES area of capture and species: 2016
3.13	Landings into the UK by UK vessels by month of landing: 2016
3.14	Landings into UK ports by UK vessels: 2012 to 2016
3.14a	Landings into major ports in England by UK vessels: 2016
3.14b	Landings into major ports in Wales by UK vessels: 2016
3.14c	Landings into major ports in Scotland by UK vessels: 2016
3.14d	Landings into major ports in Northern Ireland by UK vessels: 2016
3.15	Landings abroad by UK vessels by country of landing: 2016
3.16	Landings into the UK by foreign vessels by vessel nationality: 2016
3.17	Average price of fish landed by UK vessels into the UK: 1938 to 2016
4.2a	Imports of fish and fish preparations into the UK by exporting country: 2015 to 2016
4.3a	Exports of fish and fish preparations from the UK by importing country: 2015 to 2016
4.5a	Household purchases in the UK: 2005 to 2015
4.5b	Household purchases in the UK: 1950 to 1990
6.1a	World catch by nationality of vessel: 2005 to 2015

Preface

UK Sea Fisheries Statistics 2016 provides a broad picture of the UK fishing industry and its operations. This publication includes data on the structure, activity and landings of the UK fleet alongside additional information on overseas trade, exploitation of stocks and the world fishing industry.

Several tables in this publication have been fully revised to reflect the latest data available. Please see Appendix 5 for details. Tables in this publication are produced in accordance with National Statistics guidelines; however, data sourced externally are official statistics and are not certified as National Statistics. Such data are marked clearly throughout the publication.

The tables shown in this publication along with more detailed tables can be found on the MMO website. Please see https://www.gov.uk/government/collections/uk-sea-fisheries-annual-statistics for details.

We recommend that you refer to the explanatory notes and glossary of terms which are important in interpreting some of the data.

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Explanatory notes

1. The tables refer, as far as possible, to the United Kingdom, including the Isle of Man and the Channel Islands, with separate figures for England, Wales, Scotland and Northern Ireland. In some cases figures for the various parts of the United Kingdom are not strictly comparable and differences are explained in the headings and footnotes of the tables.

2. The figures in the tables in Chapters 3 and 6 for landings are given in terms of live weight. Those in Chapter 4 are for landed weight.

3. Landings by foreign vessels into the UK include landings by fishing vessels and carriers (if first point of sale of fish).

4. Landings figures include a quantity caught by UK vessels but not actually landed at UK ports. These quantities are transhipped to foreign vessels in coastal waters and are later recorded as exports.

5. The following symbols apply throughout:

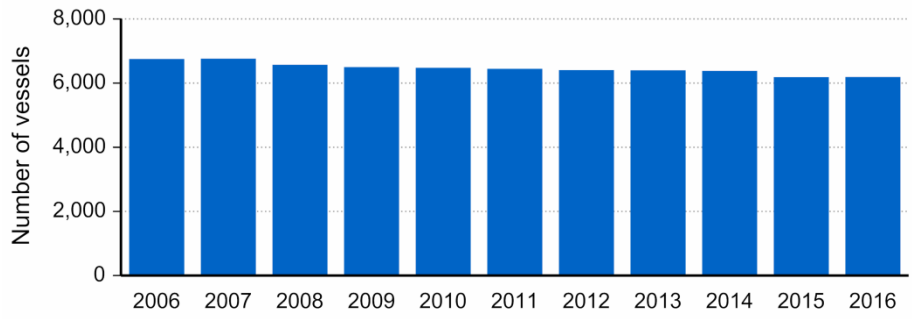
   - means "nil"
   .. means "negligible" (less than half the last digit shown)
   nd means "no data available"
   na means "not applicable"
   R means “revision”

1 Overview of the UK fishing industry

Fleet size and employment

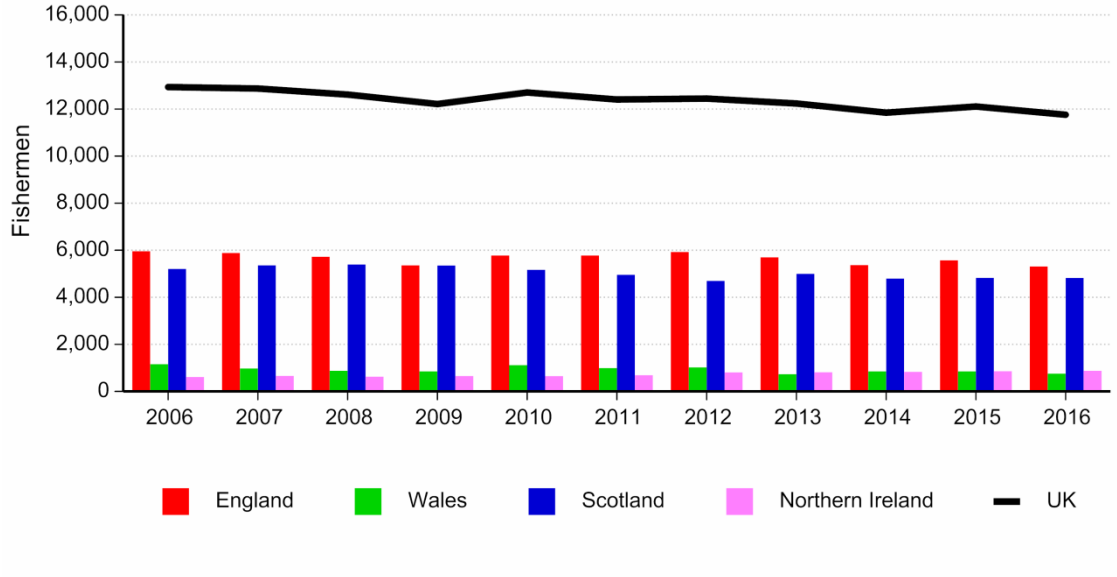
In 2016, the UK fishing industry had 6,191 fishing vessels, just four vessels higher than in the previous year. The fleet in 2016 comprised 4,876 10 metre and under vessels and 1,315 over 10 metre vessels.

Chart 1.1: UK fleet size: 2006 to 2016



There were an estimated 11,757 fishermen in 2016, down 9 per cent since 2006 and 350 fewer than in 2015. Of these, 5,306 were based in England, 753 in Wales, 4,823 in Scotland and 875 in Northern Ireland. The share of part-time fishermen over the years is fairly constant, accounting for 19 per cent of the total in 2016 compared with 20 per cent a decade ago. Further details can be found in Chapter 2.

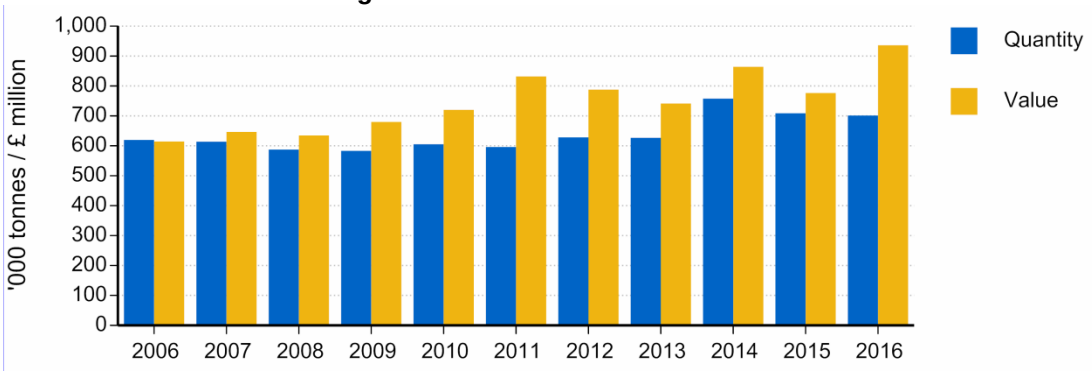
Chart 1.2: Number of fishermen in the UK: 2006 to 2016



Catch by UK vessels

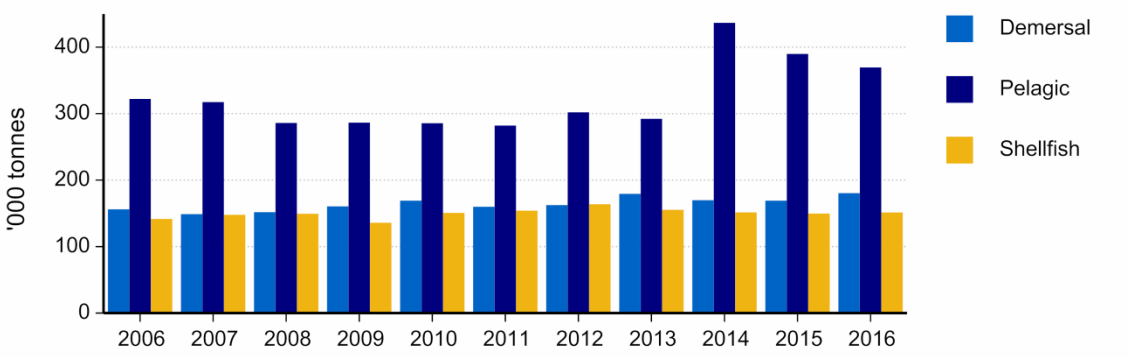
Chapter 3 presents information on quantity (live weight), value and area of capture for all UK vessels landing into the UK and abroad as well as for foreign vessels landing into the UK. Landings by member states against individual European Commission quotas for each fish stock targeted by the UK are also provided.

Chart 1.3: UK vessels landing into the UK and abroad: 2006 to 2016



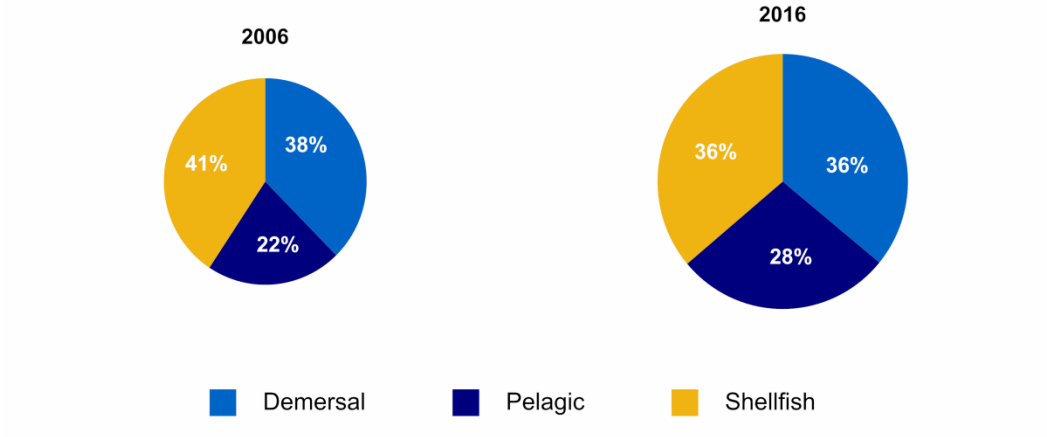
In 2016, UK vessels landed 701 thousand tonnes of sea fish (including shellfish) into the UK and abroad with a value of £936 million. This represents a 1 per cent decrease in quantity but a 21 per cent increase in value, compared with 2015. Large increases in market prices have been seen, in particular, for key pelagic and shellfish species.

Chart 1.4: UK vessels landing into the UK and abroad by species group: 2006 to 2016



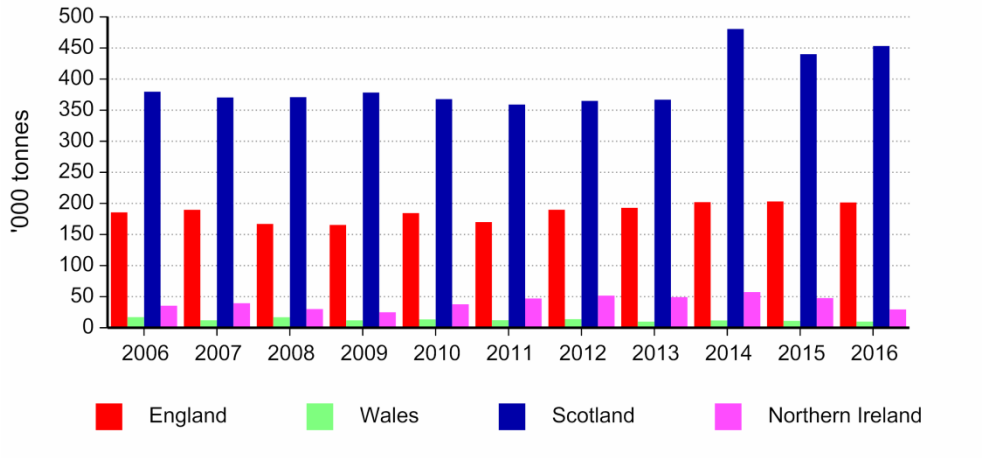
The quantity of pelagic fish landed is 15 per cent lower than in 2014 when mackerel quotas were at their peak. However, mackerel landings, and consequently pelagic landings, are still far higher than they were a few years ago. Demersal landings are 7 per cent up on 2015 while shellfish landings have changed little over the last three years.

Chart 1.5: Value of landings by UK vessels into the UK and abroad



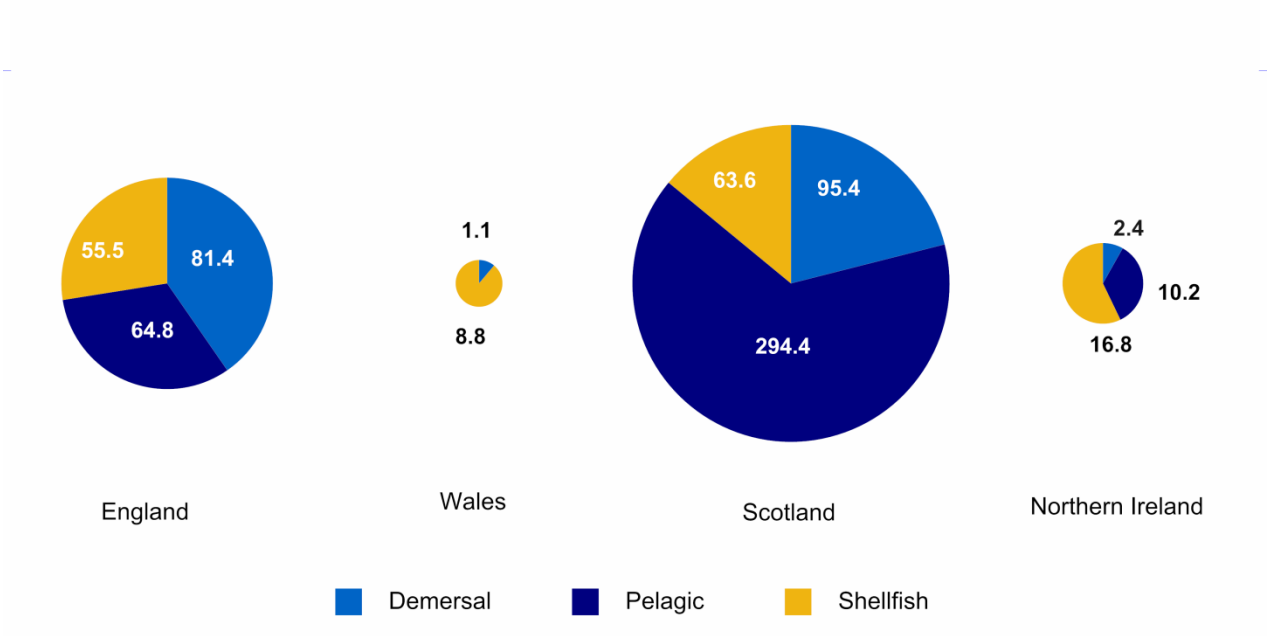
The share of the value of pelagic landings has increased by 6 percentage points over the last ten years to 28 per cent, largely at the expense of shellfish landings. Shellfish and demersal landings each account for 36 per cent of the value.

Chart 1.6: Landings into the UK and abroad by vessel nationality: 2006 to 2016



Landings by Scottish vessels were well over 400 thousand tonnes in each of the last three years, a result of increased mackerel landings. In 2016, the Scottish fleet's share of total landings was 65 per cent, compared with 29 per cent for the English fleet.

Chart 1.7: Landings into the UK and abroad by vessel nationality and species group: 2016 ('000 tonnes)

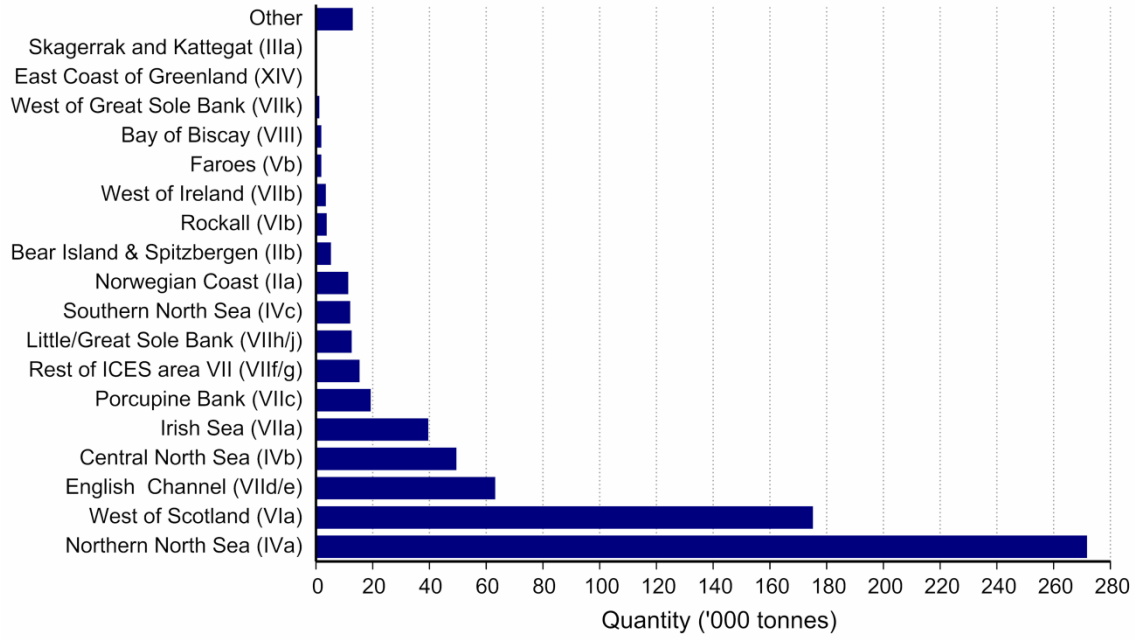


In terms of quantity, around two thirds of the Scottish fleet's landings were pelagic fish. The Welsh and Northern Irish landed mainly shellfish. Demersal fish formed the largest component of landings by the English fleet in 2016.

Catch by sea area

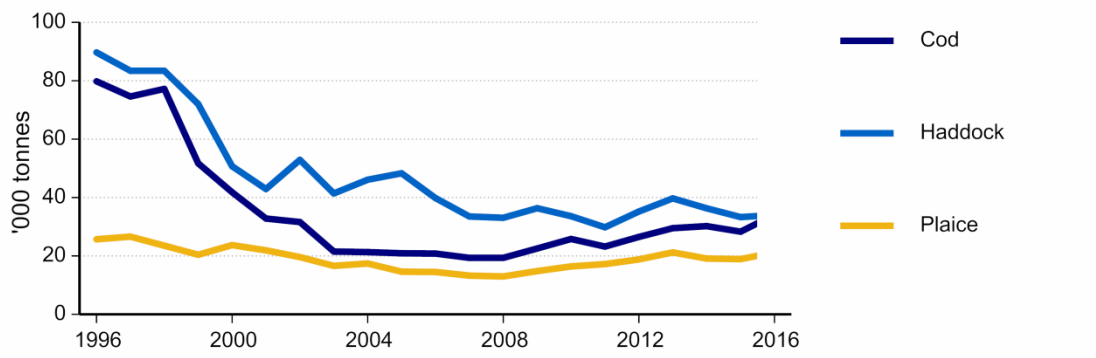
In 2016, almost two thirds of all landings by UK vessels were caught from Northern North Sea or West of Scotland (ICES divisions IVa and VIa – see Appendix 3 for a map of fishing areas).

Chart 1.8: Catch by sea area, UK vessels: 2016



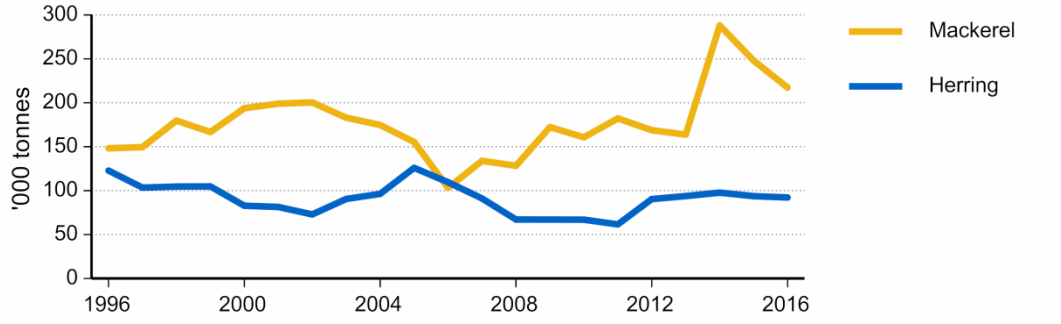
Catch by individual species

Chart 1.9: Landings of key demersal species into the UK and abroad by UK vessels: 1996 to 2016



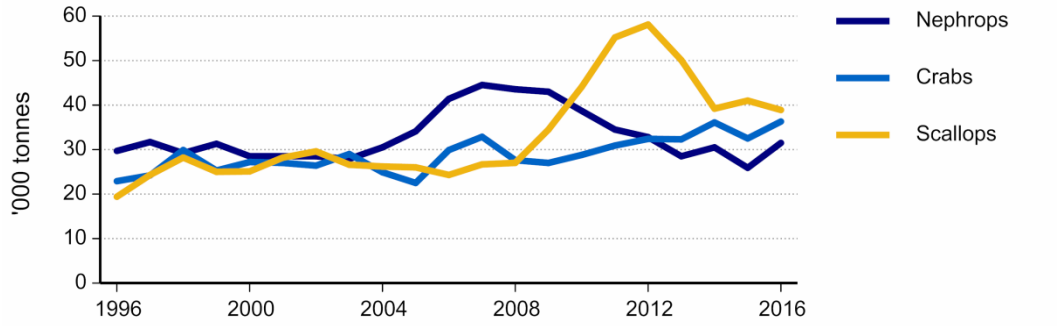
Falling catches of cod and haddock have contributed to the large reduction in demersal landings since 1996. In 2016, the UK fleet landed 34 thousand tonnes of cod (down 57 per cent since 1996) and 34 thousand tonnes of haddock (down 62 per cent since 1996). This represents a combined decrease of 101 thousand tonnes.

Chart 1.10: Landings of key pelagic species into the UK and abroad by UK vessels: 1996 to 2016



In 2016, 217 thousand tonnes of mackerel were landed, 71 thousand tonnes lower than the 2014 peak, a result of falling quotas. Herring landings have been fairly constant in recent years.

Chart 1.11: Landings of key shellfish species into the UK and abroad by UK vessels: 1996 to 2016



In 2016, 31 thousand tonnes of nephrops were landed, a 29 per cent decrease since the high point of 2007. Landings of crabs have increased by 59 per cent since 1996 to 36 thousand tonnes. The quantity of scallops landed was 39 thousand tonnes, twice the amount landed in 1996, but a third lower than the 2012 peak.

Landings into UK ports

Table 1.1 shows landings figures for three key ports in each UK country. In 2016, Peterhead, Lerwick and Fraserburgh accounted for 49 per cent by quantity and 36 per cent by value of all landings by UK vessels into the UK.

TABLE 1.1 Landings by UK vessels into key ports: 2016

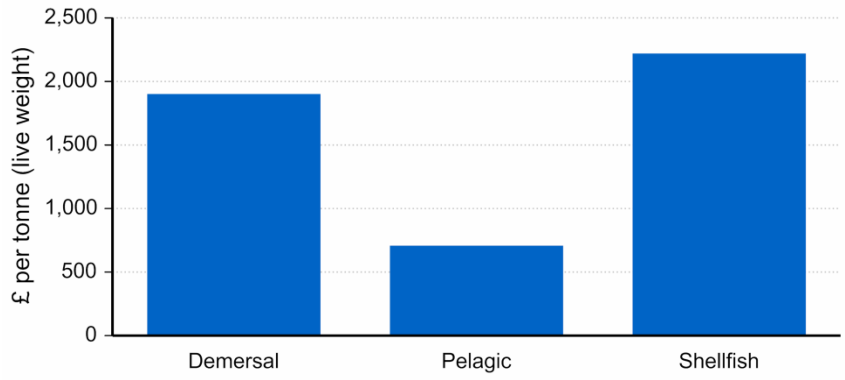
	Quantity ('000 tonnes)				Value (£ million)			
	Demersal	Pelagic	Shellfish	**Total**	Demersal	Pelagic	Shellfish	**Total**
England								
Newlyn	7.2	4.4	2.5	**14.1**	19.9	1.6	6.2	**27.7**
Brixham	5.0	1.7	6.5	**13.3**	14.2	0.4	16.2	**30.7**
Plymouth	1.6	6.9	2.8	**11.3**	5.1	3.2	6.4	**14.7**
Wales								
Holyhead	..	-	3.0	**3.0**	..	-	3.1	**3.1**
Saundersfoot	..	..	1.8	**1.8**	0.1	..	2.0	**2.0**
Milford Haven	1.0	..	0.7	**1.6**	3.0	..	1.3	**4.3**
Scotland								
Peterhead	48.7	92.6	4.1	**145.4**	78.4	66.6	12.6	**157.6**
Lerwick	9.3	41.3	0.6	**51.2**	16.3	34.2	1.4	**51.8**
Fraserburgh	6.8	9.8	5.1	**21.7**	10.3	8.0	17.8	**36.1**
Northern Ireland								
Belfast	..	5.8	-	**5.8**	..	3.4	-	**3.4**
Kilkeel	1.1	..	3.7	**4.8**	1.4	..	7.8	**9.2**
Portavogie	0.4	..	3.0	**3.4**	0.3	..	6.6	**7.0**

Source: Fisheries Administrations in the UK

Note: Additional data on the UK fishing industry are available for download from the MMO website as supplementary Table 1.2.

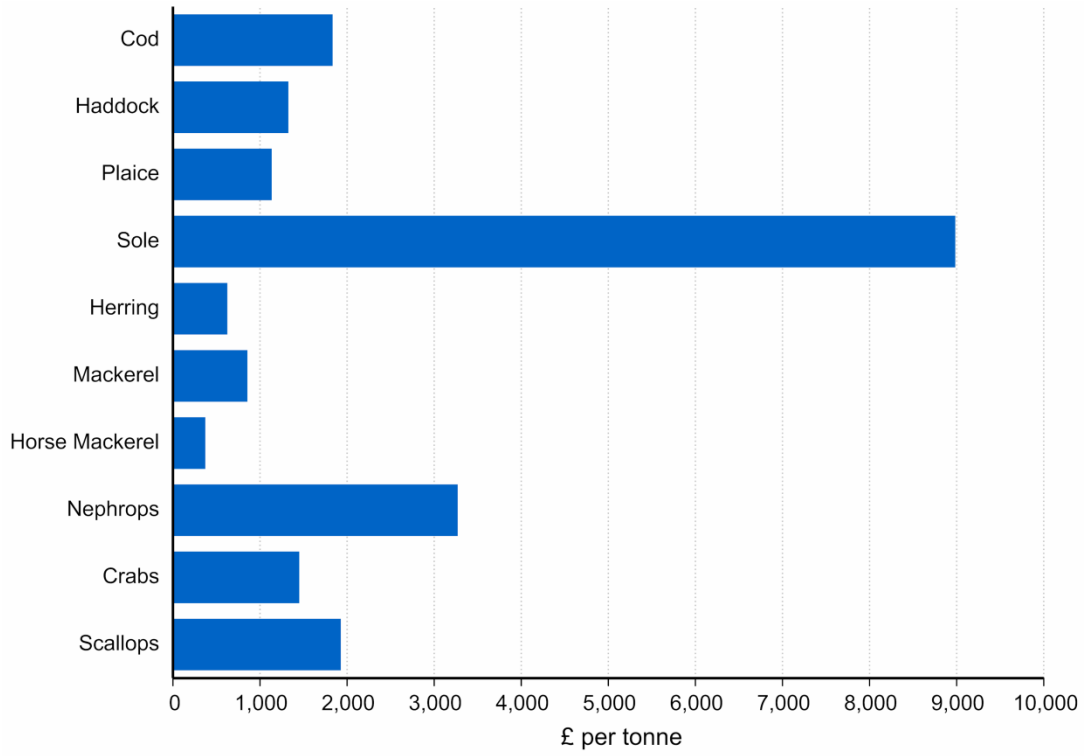
Average value

Chart 1.12: Average live weight value, UK vessels landing into the UK: 2016



In 2016, the average value of shellfish landed by UK vessels into the UK was around £2,200 per tonne (live weight) compared with £1,900 per tonne in 2015. For demersal species, the average price increased from £1,800 per tonne in 2015 to £1,900 per tonne in 2016. Pelagic prices rose from an average of £500 per tonne to £700 per tonne. Figures for key species are shown below.

Chart 1.13: Average live weight value of key species, UK vessels landing into the UK: 2016



Catch by sector

In 2016, over 99 per cent of the pelagic fish and 96 per cent of the demersal fish landed by the UK fleet were caught by vessels in a producer organisation. In contrast, only 42 per cent of all shellfish were landed by vessels in a producer organisation.

Chapter 2 shows the membership of fish producer organisations for vessels over 10 metres in length. An overview of the landings by each producer organisation, as well as for the non-sector and the 10 metres and under pool, is given in Chapter 3.

Fishing effort

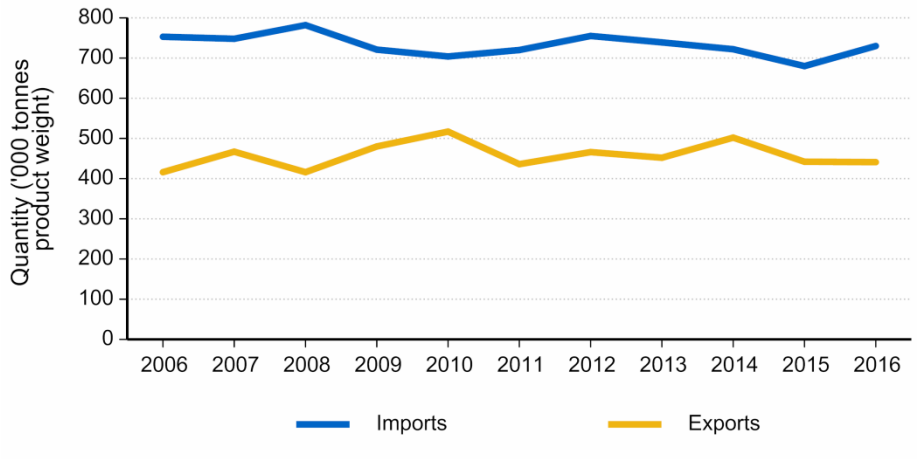
An overview of fishing effort (kW days) in recovery areas is given in Chapter 2. In 2016:

- Fishing effort with regulated whitefish trawls (TR1) has fallen by 35 per cent since the implementation of the Cod Recovery Zone in 2003.
- Activity in the Sole Recovery Zone with regulated beam trawls has fallen by 14 per cent since its creation in 2004.
- Effort on fishing trips targeting scallops in ICES sub-area VII has increased by 23 per cent since 2002, while effort on similar trips in ICES sub-areas V and VI has almost halved.

Imports and exports

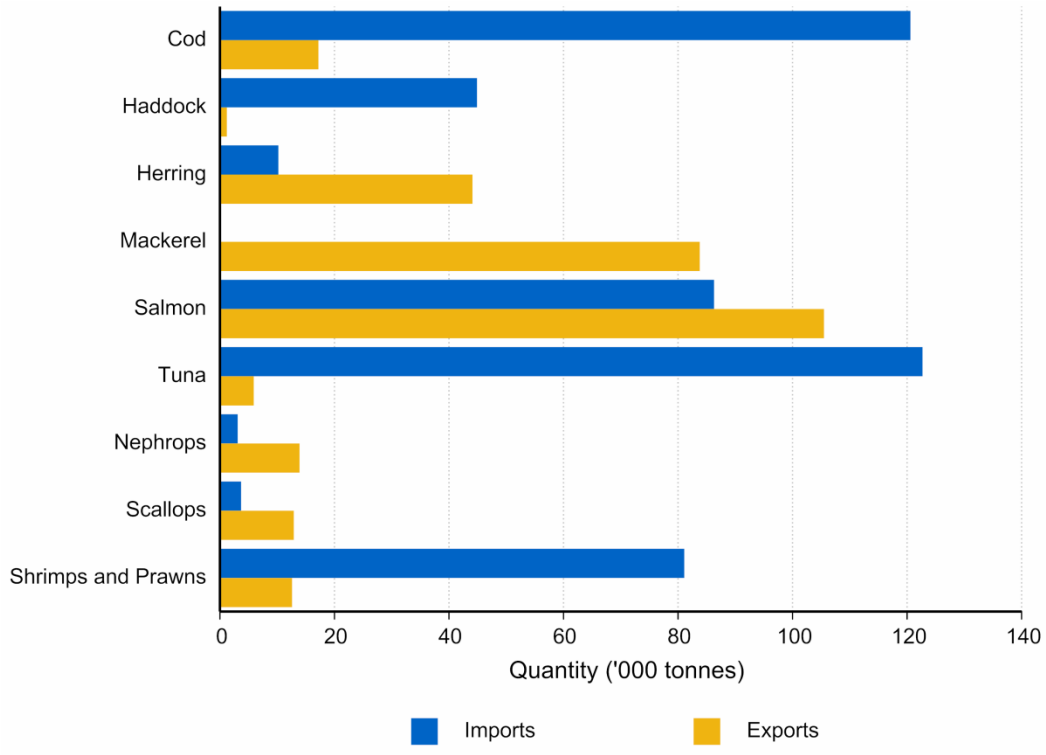
In 2016, imports of fish and fish preparations increased by 50 thousand tonnes to 730 thousand tonnes. Exports fell slightly from 442 thousand tonnes in 2015 to 441 thousand tonnes.

Chart 1.14: UK imports and exports: 2006 to 2016



In 2016, imports were highest for tuna, cod, salmon and shrimps and prawns. The UK's main exports were salmon, mackerel and herring.

Chart 1.15: UK imports and exports by key species: 2016



In 2016, imports into the UK were highest from Iceland (70 thousand tonnes), China (66 thousand tonnes), Germany (55 thousand tonnes) and Denmark (42 thousand tonnes). Of the UK exports, the largest amounts went to France (86 thousand tonnes), the Netherlands (68 thousand tonnes), Spain (36 thousand tonnes) and the USA (32 thousand tonnes). Full details on imports and exports are in Chapter 4.

Chapter 5 provides summary information on the scientific assessment of key fish stocks. Chapter 6 compares the UK fishing industry with other European countries and the rest of the world.

2 Structure and activity of the UK fishing industry

Introduction

In 2016 the UK had 6,191 registered fishing vessels, almost the same as the number in the previous year. There were 11,757 fishermen on UK registered vessels, a drop of 350 for the year. The number of kW days spent at sea by vessels over 10 metres in length has risen by 2 per cent since 2015.

This chapter brings together information on:

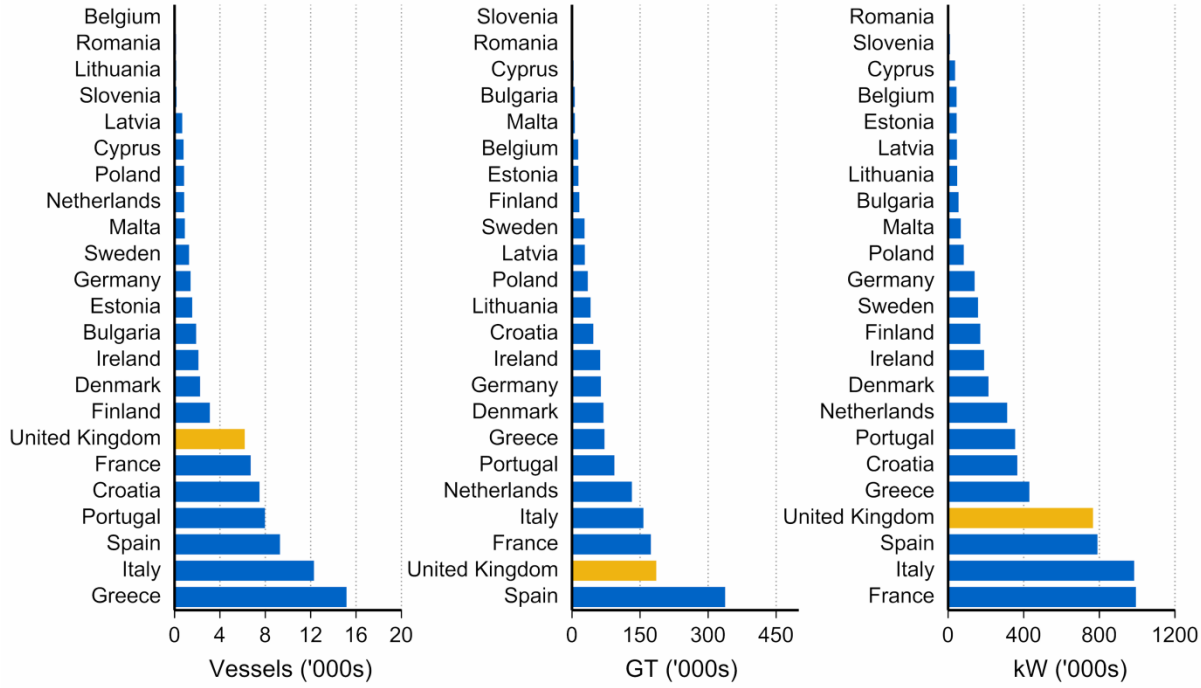
- Size and composition of the UK fishing fleet
- Number of fishermen on UK registered fishing vessels
- Accidents involving fishing vessels and fishermen
- Fishing effort by UK vessels, including coverage of effort in the Cod and Sole Recovery Zones and the Western Waters

All tables presented here are available to download as spreadsheets from the MMO website. Supplementary tables showing more detail can also be found on the website.

The EU fishing fleet

In 2016, the highest number of fishing vessels in the European Union was in Greece (15,166) while the UK was seventh with 6,191 (see Chart 2.1). Spain's capacity (338 thousand GT) is by far the largest, with the UK in second place with 186 thousand GT. The UK has the fourth most powerful fleet (0.77 million kW).

Chart 2.1: Size of the EU fishing fleet by member state: 2016



Note: Data for Chart 2.1 are available for download from the MMO website as supplementary Table 2.12.

The UK fishing fleet

The number of registered UK fishing vessels has fallen by 29 per cent since 1996. Capacity (GT) and power (kW) have decreased by 32 per cent and 27 per cent respectively over the same period (see Table 2.1). As well as an underlying downward trend in the size of the fleet associated with reduced fishing opportunities, UK fisheries administrations have operated decommissioning exercises in 2001-2002, 2003, 2007 and 2008-2009. The decommissioning exercises aimed to withdraw some capacity and effort from UK fisheries to help ensure a sustainable future, and to allow vessel owners to take a business decision on whether to remain in the fishery under the terms of fishery management plans.

TABLE 2.1 Size of the UK fishing fleet: 1996 to 2016[a]

At year end:

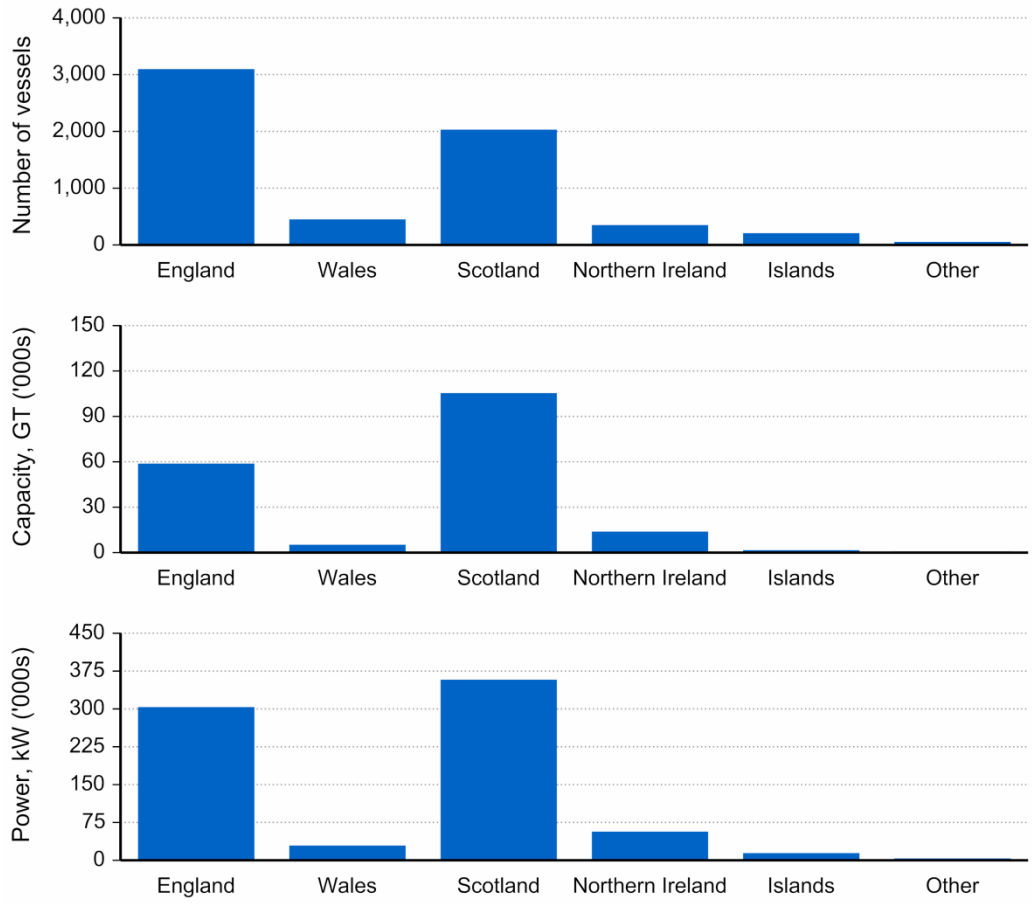
	Number	GT [b]	Power
1996	8,667	274,532	1,054,927
1997	8,458	272,421	1,026,542
1998	8,271	270,644	1,006,071
1999	8,039	264,453	978,644
2000	7,818	262,406	980,636
2001	7,721	263,040	1,001,648
2002	7,578	240,898	947,964
2003	7,096	227,449	907,340
2004	7,022	222,529	897,398
2005	6,716	217,617	876,479
2006	6,752	214,181	863,496
2007	6,763	212,816	858,011
2008	6,573	207,423	836,485
2009	6,500	208,025	832,284
2010	6,477	207,424	826,668
2011	6,444	202,048	808,887
2012	6,406	200,697	804,208
2013	6,399	197,283	797,661
2014	6,383	195,121	789,714
2015	6,187	187,371	769,532
2016	6,191	185,734	765,810

Source: Maritime and Coastguard Agency and Fisheries Administrations in the UK

(a) Includes Channel Islands, the Isle of Man and vessels without an administration port. Excludes mussel dredgers.
(b) The series for GT is on the basis of GT at the end of 2003.

The UK fishing fleet by country

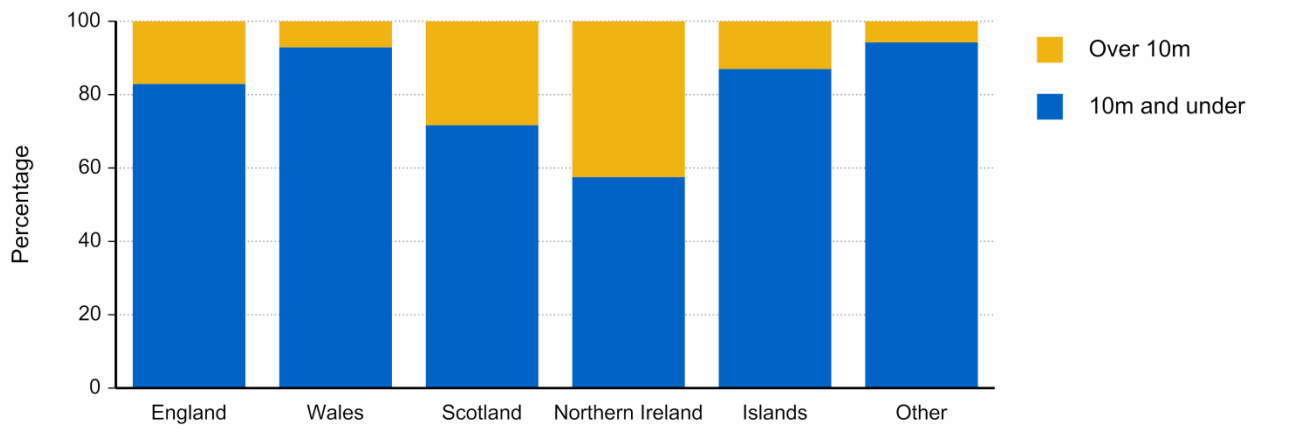
Chart 2.2: Size of the UK fishing fleet by country: 2016



Fifty per cent of all vessels were English. Scottish vessels accounted for 33 per cent of the UK fleet. However, Scotland has the highest share of capacity (GT), 57 per cent, and power (kW), 47 per cent, compared with 32 per cent and 40 per cent respectively in England (see Chart 2.2).

To understand why England has a larger number of vessels than Scotland and yet has a smaller share of capacity and power requires a more detailed analysis of the fleet composition based on vessel length (see Table 2.3). This difference can partly be explained by the higher proportion of vessels of 10 metres and under in length in the English fleet (83 per cent) compared with 72 per cent in Scotland (see Chart 2.3).

Chart 2.3: Percentage of vessels in the 10m and under and over 10m sectors by country: 2016



The overlapping areas of interest of the fleets make it difficult to provide a simple explanation of the differences in fleet structure across the UK. One relevant factor is the different fishing opportunities the fleets are engaged in. Key elements of the Scottish fleet are engaged in several fisheries that are high volume but lower priced, such as herring and mackerel caught in the North Sea and West of Scotland waters. As such the Scottish fleet has moved towards having higher capacity vessels, which, for economical viability, cover large sea areas and can catch several hundred tonnes of fish per trip.

Compared with this, the English fleet is involved in several key fisheries that are typically lower volume but higher priced, such as the Channel fisheries for sole and plaice. In addition, a greater proportion of the fisheries the English fleet is engaged in cover inshore areas. Together these factors have allowed the English fleet to develop with a greater proportion of smaller vessels that are able to be economically viable through catching smaller quantities of more valuable fish. Changes over time in the nature of fishing opportunities available to the different elements of the UK fleet have also been key drivers for the development of the fleet.

Table 2.2 shows the number, capacity (GT) and power (kW) of registered UK fishing vessels by vessel nationality and sector, i.e. over 10 metres and 10 metres and under in length.

TABLE 2.2 Size of the UK fishing fleet, by country of administration: 2013 to 2016[a]

At year end:

			England	Wales	Scotland	Northern Ireland	Islands [b]	Other [c]	Total
2013	10m and under vessels	No.	2,602	442	1,447	234	294	17	5,036
		GT	8,873	1,233	5,167	941	722	44	16,979
		kW	144,863	23,610	76,830	12,823	16,495	892	275,513
	Over 10m vessels	No.	554	35	600	145	24	5	1,363
		GT	51,537	3,656	108,741	15,147	960	263	180,304
		kW	159,535	8,643	299,966	48,788	4,267	951	522,148
	Total	**No.**	**3,156**	**477**	**2,047**	**379**	**318**	**22**	**6,399**
		GT	**60,411**	**4,888**	**113,908**	**16,087**	**1,682**	**306**	**197,283**
		kW	**304,397**	**32,253**	**376,796**	**61,611**	**20,762**	**1,843**	**797,661**
2014	10m and under vessels	No.	2,573	426	1,458	225	299	45	5,026
		GT	8,869	1,110	6,409	901	744	85	18,119
		kW	144,045	21,644	78,256	12,215	16,896	2,439	275,496
	Over 10m vessels	No.	555	40	590	143	25	4	1,357
		GT	54,435	4,429	101,607	14,483	980	1,068	177,002
		kW	166,159	9,551	282,795	47,451	4,242	4,021	514,219
	Total	**No.**	**3,128**	**466**	**2,048**	**368**	**324**	**49**	**6,383**
		GT	**63,304**	**5,539**	**108,017**	**15,385**	**1,724**	**1,153**	**195,121**
		kW	**310,204**	**31,195**	**361,052**	**59,666**	**21,138**	**6,459**	**789,714**
2015	10m and under vessels	No.	2,598	412	1,434	201	182	36	4,863
		GT	8,772	1,044	5,198	833	525	100	16,472
		kW	147,874	20,950	78,405	11,285	10,070	2,104	270,688
	Over 10m vessels	No.	541	32	573	148	27	3	1,324
		GT	53,906	4,064	99,082	12,570	1,109	167	170,899
		kW	164,797	8,362	276,471	43,890	4,634	691	498,844
	Total	**No.**	**3,139**	**444**	**2,007**	**349**	**209**	**39**	**6,187**
		GT	**62,679**	**5,108**	**104,280**	**13,403**	**1,634**	**267**	**187,371**
		kW	**312,671**	**29,312**	**354,876**	**55,175**	**14,704**	**2,794**	**769,532**
2016	10m and under vessels	No.	2,569	419	1,456	202	181	49	4,876
		GT	8,672	1,028	5,284	851	516	129	16,479
		kW	147,745	20,892	80,606	11,513	9,513	2,427	272,696
	Over 10m vessels	No.	529	32	575	149	27	3	1,315
		GT	50,140	4,159	100,112	13,065	1,109	670	169,255
		kW	155,969	8,500	277,306	45,337	4,634	1,368	493,114
	Total	**No.**	**3,098**	**451**	**2,031**	**351**	**208**	**52**	**6,191**
		GT	**58,813**	**5,186**	**105,395**	**13,916**	**1,625**	**799**	**185,734**
		kW	**303,714**	**29,392**	**357,912**	**56,850**	**14,147**	**3,795**	**765,810**

Source: Maritime and Coastguard Agency and Fisheries Administrations in the UK

(a) Excludes Mussel Dredgers.

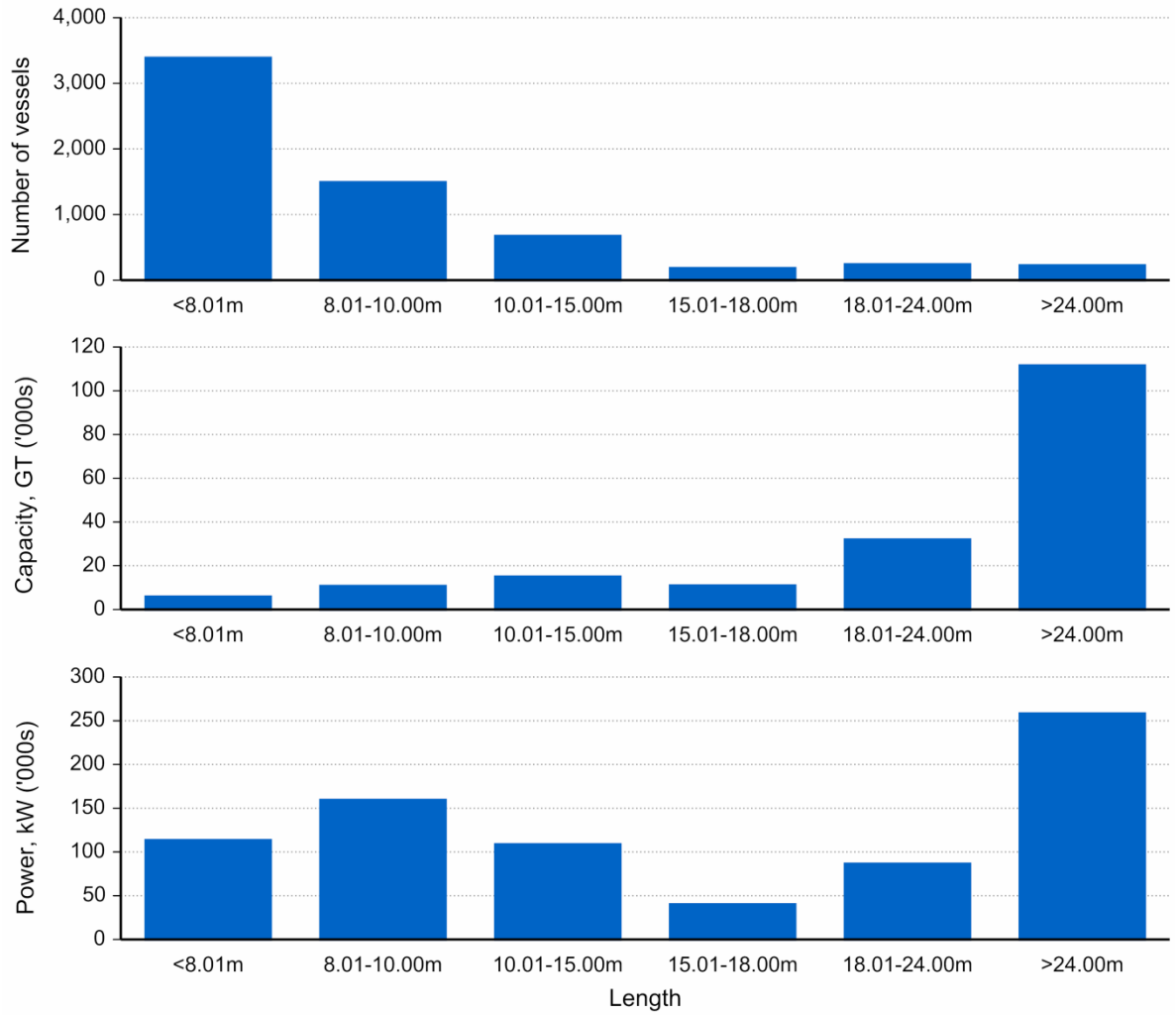
(b) Islands include Guernsey, Jersey and the Isle of Man.

(c) Vessels which are registered but not administered by a port; typically new vessels and vessels changing administrations.

Note: Additional data on the UK fishing fleet are available for download from the MMO website as supplementary Table 2.2a.

The UK fishing fleet by length

Chart 2.4: Size of the UK fishing fleet by length: 2016



Almost four fifths of the UK fleet is made up of vessels of 10 metres and under in length. These vessels account for 9 per cent of the fleet's capacity and 36 per cent of the fleet's power. However, vessels over 18 metres in length account for just 7 per cent of the total number but for 77 per cent of total capacity and 45 per cent of total power (see Chart 2.4).

Table 2.3 shows the number, capacity (GT) and power (kW) of registered UK fishing vessels by vessel nationality and vessel length.

Scotland and Northern Ireland have higher proportions of large vessels than England. For example, 18 per cent of the Scottish fleet and 29 per cent of the far smaller - in number - Northern Irish fleet exceed 15 metres in length compared with 5 per cent in England. The capacity of the 357 Scottish vessels over 15 metres in length (6 per cent of all UK vessels) exceeds the capacity of the rest of the UK fleet combined.

TABLE 2.3 UK fishing fleet by vessel length and country of administration: 2016

At year end:

	Overall length	8.00m and under	8.01 - 10.00m	10.01 - 15.00m	15.01 - 18.00m	18.01 - 24.00m	Over 24.00m	Total
England	Number	1,782	787	368	32	52	77	**3,098**
	Gross tonnage	2,957	5,716	8,090	1,815	6,292	33,943	**58,813**
	Engine power	60,928	86,817	62,166	6,625	14,650	72,528	**303,714**
Wales	Number	329	90	23	3	1	5	**451**
	Gross tonnage	445	582	1,114	135	97	2,813	**5,186**
	Engine power	12,128	8,764	3,476	553	221	4,251	**29,392**
Scotland	Number	965	491	218	109	124	124	**2,031**
	Gross tonnage	1,842	3,442	4,153	7,006	18,700	70,252	**105,395**
	Engine power	30,422	50,184	33,221	25,715	49,906	168,464	**357,912**
Northern Ireland	Number	121	81	46	27	59	17	**351**
	Gross tonnage	224	627	1,098	1,411	6,537	4,019	**13,916**
	Engine power	3,118	8,395	7,184	5,128	20,774	12,252	**56,850**
Islands (a)	Number	151	30	15	10	2	-	**208**
	Gross tonnage	289	227	449	519	140	-	**1,625**
	Engine power	5,491	4,022	2,280	1,989	365	-	**14,147**
Other (b)	Number	38	11	1	-	1	1	**52**
	Gross tonnage	59	70	44	-	139	487	**799**
	Engine power	1,272	1,155	280	-	426	662	**3,795**
Total	**Number**	**3,386**	**1,490**	**671**	**181**	**239**	**224**	**6,191**
	Gross tonnage	**5,815**	**10,664**	**14,949**	**10,886**	**31,905**	**111,515**	**185,734**
	Engine power	**113,359**	**159,337**	**108,606**	**40,010**	**86,342**	**258,157**	**765,810**

Source: Maritime and Coastguard Agency and Fisheries Administrations in the UK

(a) Islands include Guernsey, Jersey and the Isle of Man.

(b) Vessels which are registered but not administered by a port; typically new vessels and vessels changing administrations.

Note: Additional data on the UK fishing fleet are available for download from the MMO website as supplementary Table 2.3a.

The UK fishing fleet by administration port

Charts 2.5 to 2.7 show the fleet size by number of vessels, capacity (GT) and power (kW) for each administration port in the UK. Each chart shows the relative size of the fleet broken down into the over 10 metres and 10 metres and under sectors.

In 2016:

- Newlyn had the largest number (585) of vessels in its administration. 88 per cent of these were of 10 metres and under in length.
- The fleet administered by Fraserburgh had the largest capacity (29,920 GT) and power (82,406 kW).
- The largest proportions of 10 metre and under vessels were in Milford Haven (93 per cent) and Hastings (92 per cent). Lochinver had the highest proportion of over 10 metre vessels (59 per cent).

Chart 2.5: Number of vessels by administration port: 2016

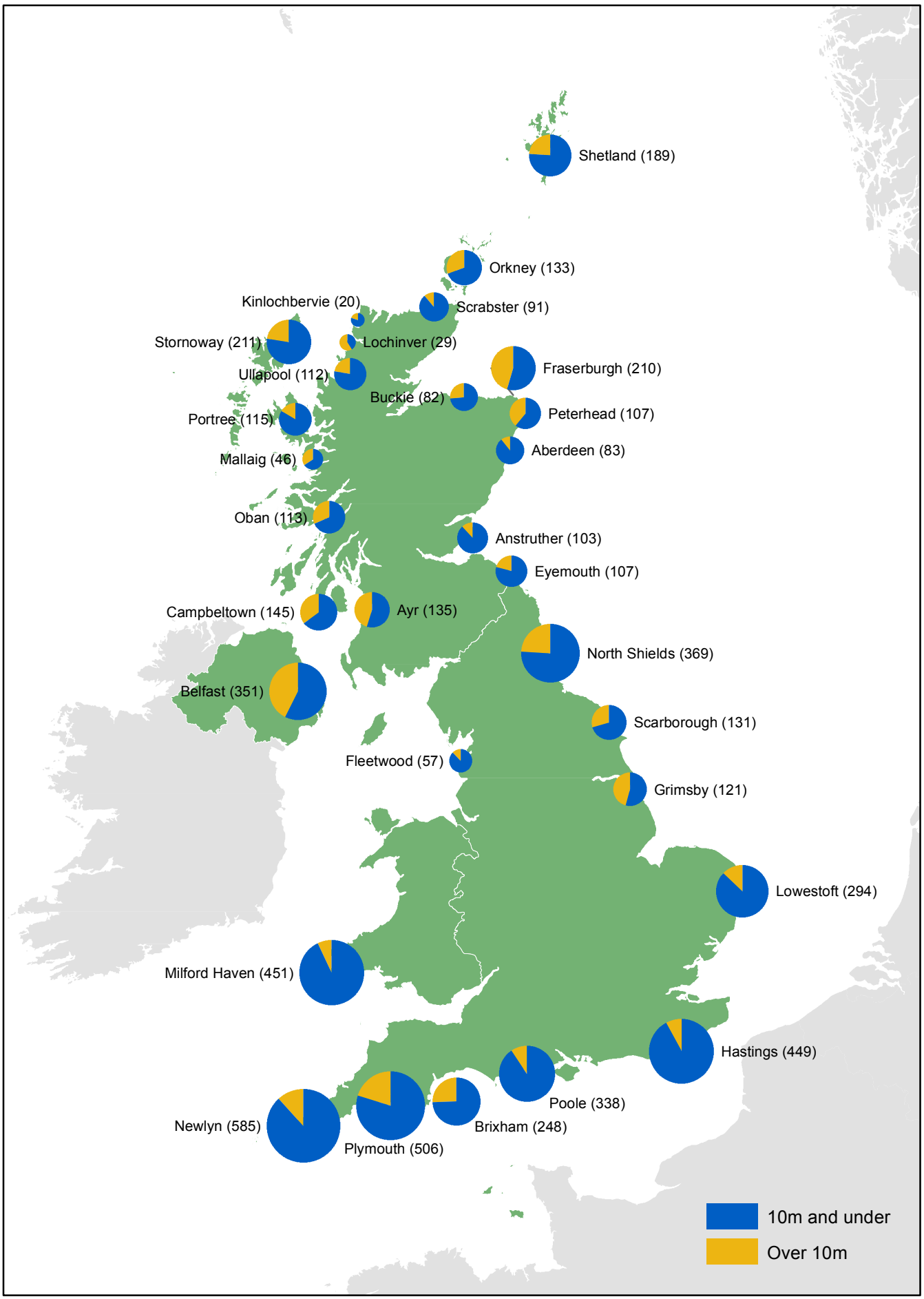


Chart 2.6: Capacity (GT) of fleet by administration port: 2016

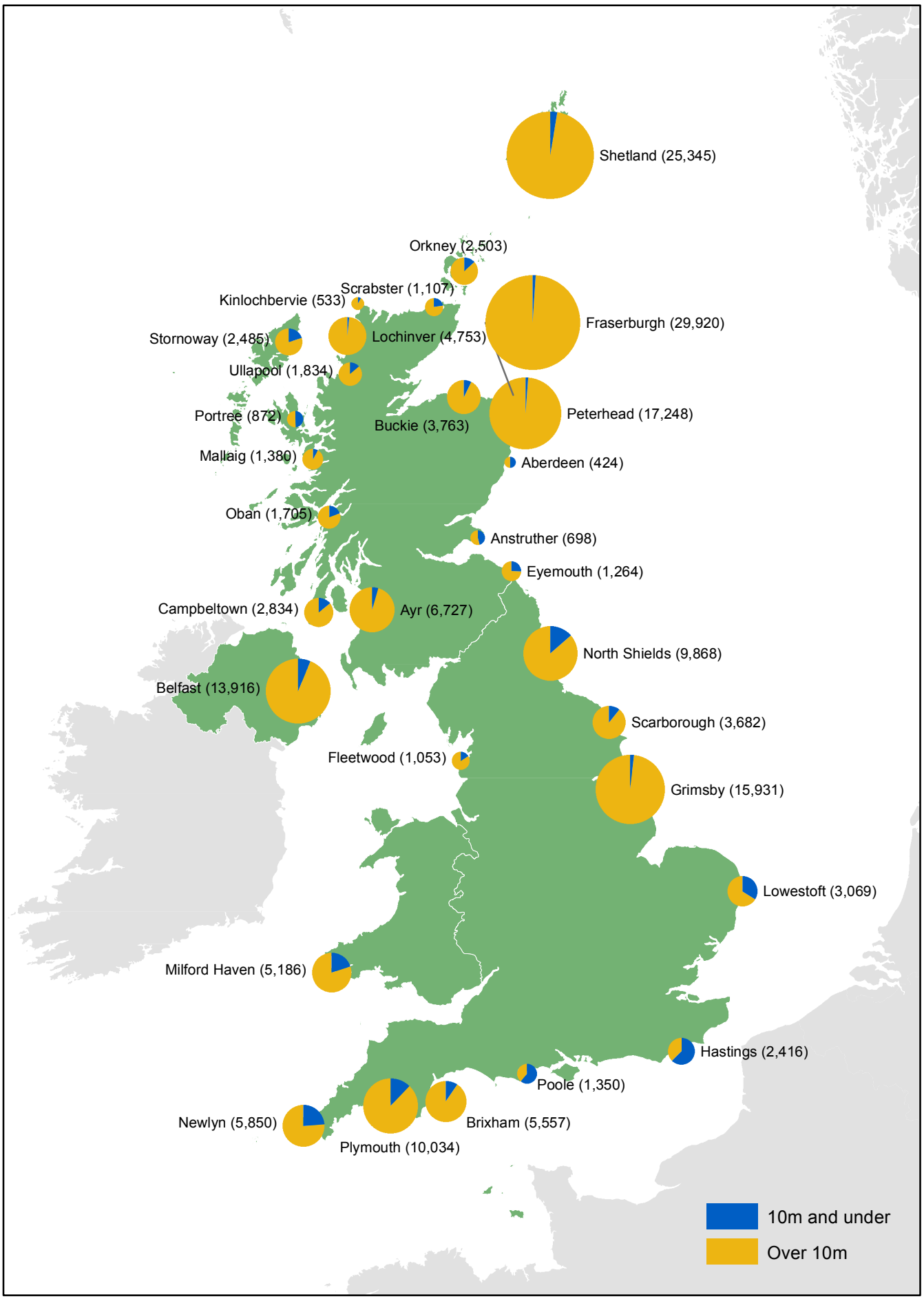
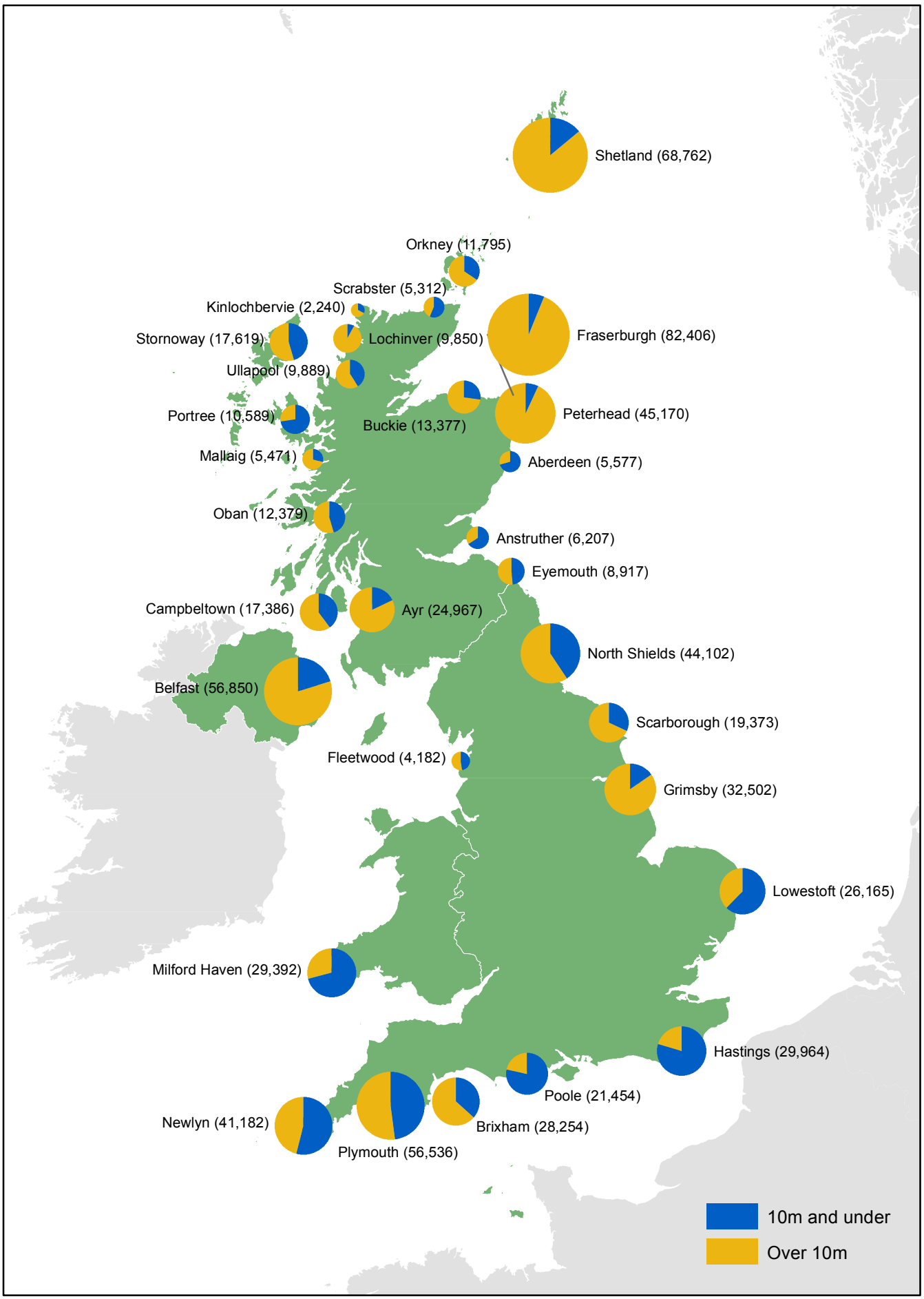
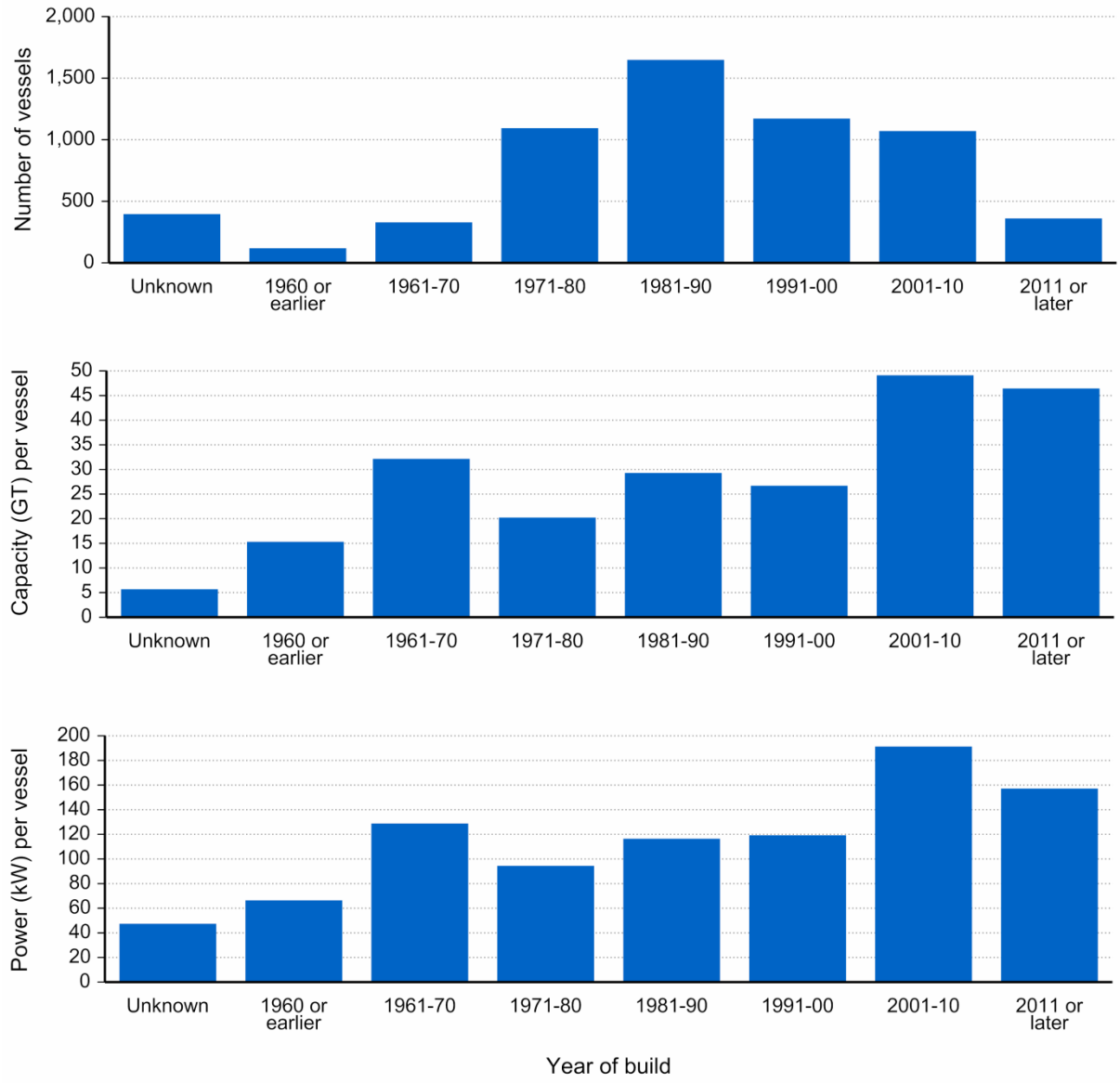


Chart 2.7: Power (kW) of fleet by administration port: 2016



The UK fishing fleet by age

Chart 2.8: Size, average capacity and power of the UK fishing fleet by year of construction: 2016



More than half of all vessels in the UK fleet (whose age is known) were built before 1991. While the number of vessels being built since the 1980s has decreased, the average capacity and power of vessels built since 2000 has increased significantly (see Chart 2.8).

Table 2.4 shows a breakdown of the fleet by age in each country within the UK.

TABLE 2.4 Age of UK vessels by country of administration: 2016

		Year of construction								
		Unknown	**1960 or earlier**	**1961-1970**	**1971-1980**	**1981-1990**	**1991-2000**	**2001-2010**	**2011 or later**	**Total**
England	Number	171	61	155	535	812	610	568	186	**3,098**
	Gross tonnage	692	761	4,164	7,756	21,632	7,393	10,269	6,144	**58,813**
	Engine power (kW)	8,557	3,761	17,854	42,669	87,054	54,926	65,306	23,588	**303,714**
Wales	Number	53	6	11	59	127	78	85	32	**451**
	Gross tonnage	191	63	186	273	2,451	447	654	921	**5,186**
	Engine power (kW)	2,390	228	843	2,782	9,300	4,112	6,184	3,553	**29,392**
Scotland	Number	127	44	106	375	575	358	326	120	**2,031**
	Gross tonnage	933	757	3,770	10,008	20,580	20,882	39,097	9,368	**105,395**
	Engine power (kW)	5,279	2,874	14,118	42,124	79,661	66,565	120,325	26,965	**357,912**
Northern	Number	17	4	40	82	86	71	43	8	**351**
Ireland	Gross tonnage	371	231	2,038	3,643	3,397	2,124	1,872	240	**13,916**
	Engine power (kW)	1,727	960	7,867	12,864	13,750	9,871	8,441	1,369	**56,850**
Islands [(a)]	Number	19	3	17	40	43	46	34	6	**208**
	Gross tonnage	29	7	422	424	223	274	211	35	**1,625**
	Engine power (kW)	449	34	1,691	2,745	2,013	3,198	3,369	649	**14,147**
Other [(b)]	Number	9	1	-	3	6	9	15	9	**52**
	Gross tonnage	29	6	-	16	15	156	520	57	**799**
	Engine power (kW)	382	49	-	130	268	1,039	1,323	605	**3,795**
Total	**Number**	**396**	**119**	**329**	**1,094**	**1,649**	**1,172**	**1,071**	**361**	**6,191**
	Gross tonnage	**2,246**	**1,824**	**10,580**	**22,121**	**48,299**	**31,277**	**52,622**	**16,765**	**185,734**
	Engine power (kW)	**18,785**	**7,906**	**42,373**	**103,314**	**192,046**	**139,710**	**204,947**	**56,730**	**765,810**

Source: Maritime and Coastguard Agency and Fisheries Administrations in the UK

(a) Islands include Guernsey, Jersey and the Isle of Man.

(b) Vessels which are registered but not administered by a port; typically new vessels and vessels changing administrations.

Note: Additional data on the UK fishing fleet are available for download from the MMO website as supplementary Tables 2.4a, 2.4b and 2.4c.

Membership of Fish Producer Organisations

On 1 January 2016, 38 per cent of vessels over 10 metres in length were not members of a Fish Producer Organisation (FPO), i.e. they were members of the over 10m or Isle of Man non-sectors. The Scottish FPO had the highest membership (169 vessels), followed by Northern Ireland FPO (124 vessels).

TABLE 2.5 Fish Producer Organisation (FPO) membership[a]: 2015 to 2016

Membership as at 1 January for each year

	2015 [b]		2016 [b]	
	Vessels in membership	Members as a % of total	Vessels in membership	Members as a % of total
Scottish FPO Ltd	176	*13%*	169	*13%*
Northern Ireland FPO Ltd	115	*9%*	124	*9%*
Cornish FPO Ltd	100	*8%*	93	*7%*
South Western FPO Ltd	89	*7%*	87	*7%*
Shetland FPO Ltd	36	*3%*	37	*3%*
Anglo Northern Irish FPO Ltd	40	*3%*	36	*3%*
Anglo Scottish FPO Ltd	34	*3%*	34	*3%*
West of Scotland FPO Ltd	28	*2%*	31	*2%*
Fife FPO Ltd	24	*2%*	30	*2%*
Eastern England FPO Ltd	34	*3%*	29	*2%*
North East of Scotland FO Ltd	23	*2%*	24	*2%*
Northern Producers Organisation Ltd	23	*2%*	23	*2%*
Fleetwood FPO Ltd	23	*2%*	20	*2%*
Isle of Man Non-Sector	19	*1%*	20	*2%*
Aberdeen FPO	14	*1%*	15	*1%*
North Sea FPO Ltd	12	*1%*	14	*1%*
Orkney FPO Ltd	10	*1%*	13	*1%*
Interfish	10	*1%*	11	*1%*
The FPO Ltd	10	*1%*	9	*1%*
Lowestoft FPO Ltd	6	*0%*	6	*0%*
Wales and West Coast FPO Ltd	6	*0%*	6	*0%*
Lunar Group	4	*0%*	4	*0%*
Klondyke	3	*0%*	3	*0%*
North Atlantic FPO Ltd	3	*0%*	1	*0%*
Non-sector vessels [c]	481	*36%*	476	*36%*
Total	**1,323**	***100%***	**1,315**	***100%***

Source: Fisheries Administrations in the UK

(a) Vessels over 10 metres only. Excludes vessels 10 metres and under in FPO membership.

(b) Includes some Channel Islands and Isle of Man vessels.

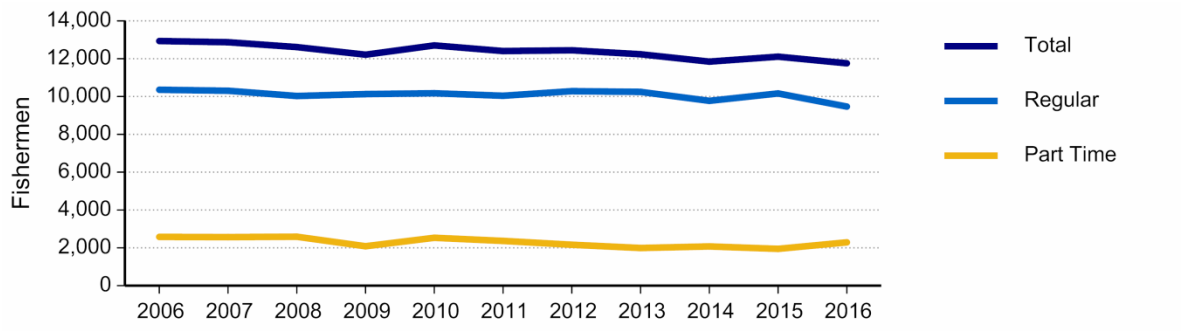
(c) Over 10m vessels not in FPO membership.

Number of fishermen

Statistics on the number of fishermen are drawn from surveys carried out by the Marine Management Organisation in England, the Welsh Assembly Government, the Department of Agriculture, Environment and Rural Affairs in Northern Ireland and Marine Scotland. Details of the survey methodology are provided in Appendix 4.

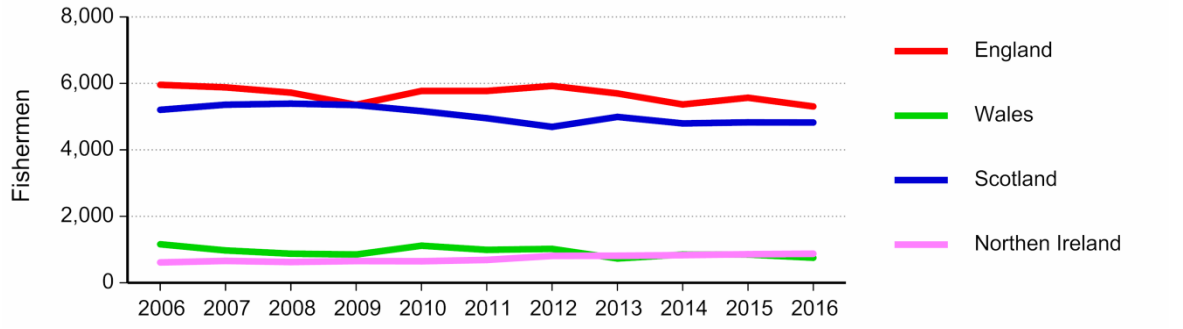
The number of fishermen on UK registered vessels has decreased by 9 per cent since 2006 from 12,934 to 11,757 in 2016. The number of regular fishermen has decreased by 9 per cent and the number of part-time fishermen, which comprise around a fifth of all fishermen, has decreased by 11 per cent over this period (see Chart 2.9). The decrease in fishermen numbers may be associated with reductions in fleet size as well as decreased fishing opportunities.

Chart 2.9: Number of fishermen on UK registered vessels: 2006 to 2016



Since 2006, the number of fishermen on English administered vessels has decreased by 11 per cent and on vessels administered in Scotland by 7 per cent. In Northern Ireland, fishermen numbers increased by 43 per cent but they decreased by around a third in Wales (see Chart 2.10).

Chart 2.10: Number of fishermen by country of administration: 2006 to 2016



Over the last twenty years, the proportion of part-time fishermen has fluctuated between 16 and 22 per cent. In 2016, they accounted for 19 per cent of all fishermen. Forty two per cent of fishermen on vessels administered in Wales were part-time compared with 15 per cent for vessels administered in England, 21 per cent in Scotland and 20 per cent in Northern Ireland (see Chart 2.11).

Chart 2.11: Number of regular and part-time fishermen by country of administration: 2016

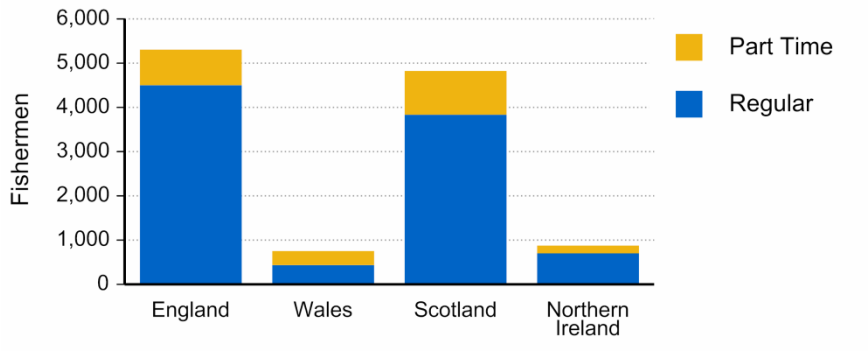


Table 2.6 shows a breakdown of the number of regular and part-time fishermen by country in the UK from 1938 to 2016. Since 1938:

- The number of fishermen on UK registered vessels has decreased by 75 per cent.
- The proportion of fishermen in each country of administration hasn't changed dramatically. In 1938 fishermen numbers in England and Wales represented 61 per cent of the UK total, while Scotland represented 37 per cent. In 2016, the proportions were 52 per cent and 41 per cent respectively.

TABLE 2.6 Number of UK fishermen: 1938 to 2016

	ENGLAND & WALES[a][b]			SCOTLAND			NORTHERN IRELAND			UNITED KINGDOM		
	Regular	Part-time	Total	Regular	Part-time	Total	Regular	Part-time	Total	Regular	Part-time	Total
1938	26,062	2,949	29,011	12,976	4,939	17,915	342	556	898	39,380	8,444	47,824
1948	25,946	3,373	29,319	12,080	5,148	17,228	800	300	1,100	38,826	8,821	47,647
1960	12,712	3,646	16,358	8,795	2,451	11,246	500	150	650	22,007	6,247	28,254
1965	11,064	4,045	15,109	8,057	2,088	10,145	480	140	620	19,601	6,273	25,874
1970	9,424	2,382	11,806	7,656	1,441	9,097	400	140	540	17,480	3,963	21,443
1975	9,016	3,447	12,463	7,507	1,341	8,848	538	285	823	17,061	5,073	22,134
1980	8,455	5,135	13,590	7,561	1,138	8,699	780	240	1,020	16,796	6,513	23,309
1981	8,450	5,992	14,442	7,376	1,085	8,461	775	312	1,087	16,601	7,389	23,990
1982	8,258	5,465	13,723	7,247	937	8,184	841	263	1,104	16,346	6,665	23,011
1983	8,022	5,355	13,377	7,173	902	8,075	811	324	1,135	16,006	6,581	22,587
1984	8,142	4,571	12,713	7,198	899	8,097	764	295	1,059	16,104	5,765	21,869
1985	7,984	5,036	13,020	7,170	932	8,102	808	294	1,102	15,962	6,262	22,224
1986	8,801	4,461	13,262	7,244	992	8,236	861	275	1,136	16,906	5,728	22,634
1987 [c]	8,737	4,027	12,764	7,522	970	8,492	894	274	1,168	17,153	5,271	22,424
1988	8,467	4,039	12,506	7,672	891	8,563	956	295	1,251	17,095	5,225	22,320
1989	nd	nd	nd	7,862	803	8,665	950	283	1,233	nd	nd	nd
1990	nd	nd	nd	7,550	766	8,316	1,050	316	1,366	nd	nd	nd
1991	nd	nd	nd	7,303	792	8,095	1,081	288	1,369	nd	nd	nd
1992	nd	nd	nd	7,181	865	8,046	1,036	296	1,332	nd	nd	nd
1993 [d]	nd	nd	nd	7,675	1,347	9,022	957	272	1,229	nd	nd	nd
1994	7,542	3,425	10,967	7,160	1,410	8,570	938	228	1,166	15,640	5,063	20,703
1995	8,240	2,192	10,432	6,889	1,506	8,395	933	226	1,159	16,062	3,924	19,986
1996	7,867	2,130	9,997	6,689	1,395	8,084	815	148	963	15,371	3,673	19,044
1997	7,253	2,176	9,429	6,729	1,465	8,194	850	131	981	14,832	3,772	18,604
1998	7,149	1,962	9,111	6,395	1,376	7,771	892	115	1,007	14,436	3,453	17,889
1999	6,977	1,654	8,631	6,042	1,288	7,330	845	90	935	13,864	3,032	16,896
2000	6,193	1,868	8,061	5,594	1,308	6,902	612	74	686	12,399	3,250	15,649
2001	6,279	1,483	7,762	5,353	1,284	6,637	513	46	559	12,145	2,813	14,958
2002	6,505	1,382	7,887	4,369	1,338	5,707	568	43	611	11,442	2,763	14,205
2003	5,778	1,570	7,348	3,968	1,308	5,276	458	40	498	10,204	2,918	13,122
2004	6,364	1,195	7,559	4,124	1,151	5,275	535	84	619	11,023	2,430	13,453
2005	6,026	1,081	7,107	3,952	1,203	5,155	514	55	569	10,492	2,339	12,831
2006	5,702	1,414	7,116	4,109	1,096	5,205	547	66	613	10,358	2,576	12,934
2007	5,340	1,514	6,854	4,408	951	5,359	557	101	658	10,305	2,566	12,871
2008	4,911	1,686	6,597	4,585	807	5,392	532	93	625	10,028	2,586	12,614
2009	5,185	1,024	6,209	4,403	946	5,349	541	113	654	10,129	2,083	12,212
2010 [e]	5,380	1,509	6,889	4,257	909	5,166	535	113	648	10,172	2,531	12,703
2011	5,386	1,378	6,764	4,076	877	4,953	578	110	688	10,040	2,365	12,405
2012 [f]	5,877	1,067	6,944	3,752	941	4,693	654	154	808	10,283	2,162	12,445
2013 [g]	5,478	951	6,429	4,092	900	4,992	675	139	814	10,245	1,990	12,235
2014	5,109	1,108	6,217	3,980	816	4,796	683	149	832	9,772	2,073	11,845
2015	5,469	951	6,420	3,985	843	4,828	708	151	859	10,162	1,945	12,107
2016	4,934	1,125	6,059	3,834	989	4,823	700	175	875	9,468	2,289	11,757

(a) Prior to 1952 figures were based on information supplied by the Registrar General of Shipping and Seamen. Since 1952 figures have been supplied by the District Fishery Officers of Defra and now the MMO.

(b) From 1966 these figures exclude 'hobby' fishermen, that is, fishermen who do not fish commercially. The corresponding figures for Scotland and Northern Ireland have never included 'hobby' fishermen.

(c) Includes 1986 figures for Newlyn and Plymouth.

(d) The apparent increase in fishermen in Scotland reflected the licensing of 10m and under vessels when more information became available on the numbers of such active vessels.

(e) From 2010, revised guidance was issued to ports in England and Wales on the classification of regular and part-time fishermen leading to improved recording of fishermen numbers.

(f) Between 2011 and 2012 there was an increase in the number of fishermen in Northern Ireland due to the figures for two areas now including local coastal activity (mainly pot fishing).

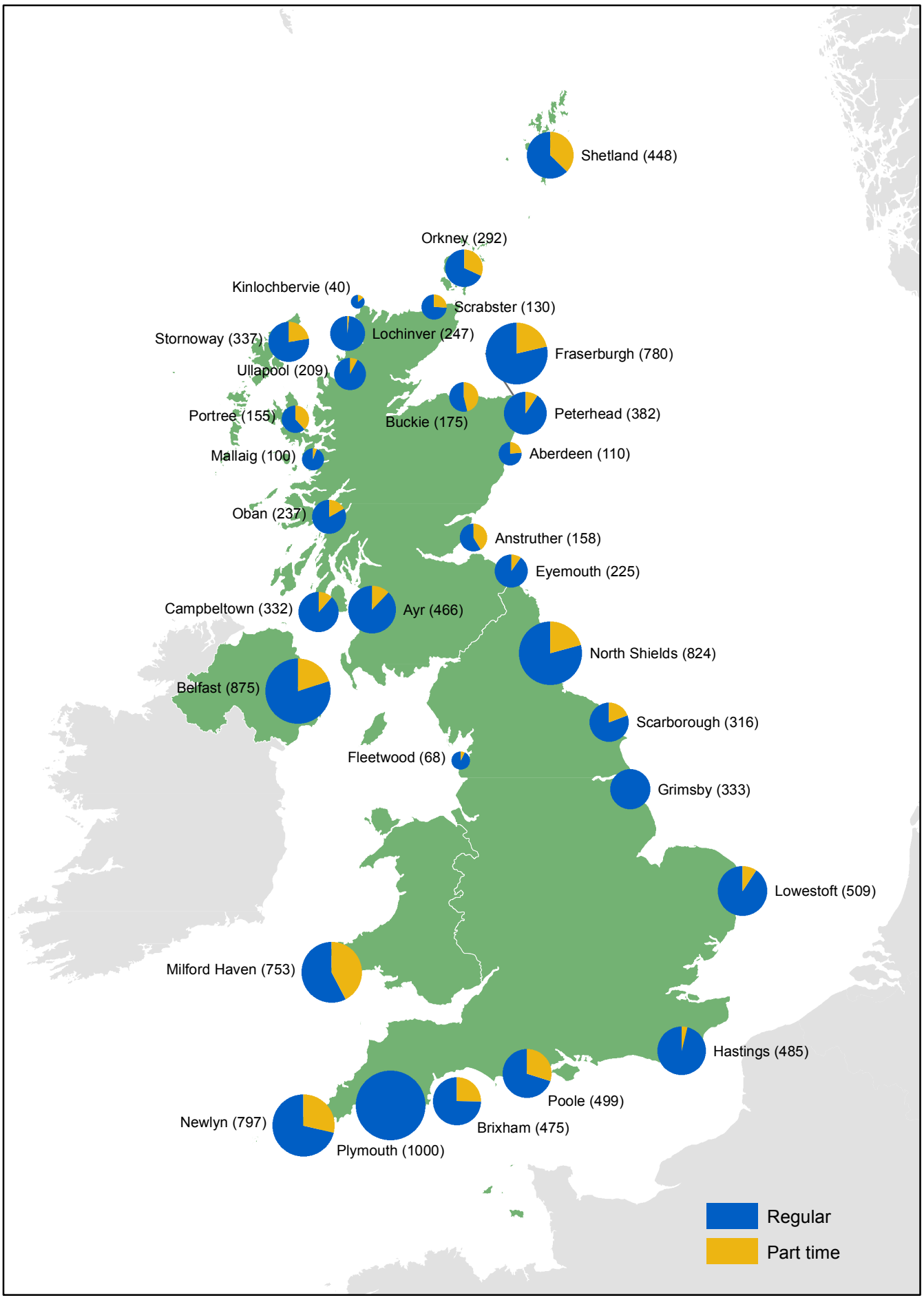
(g) Amendments to fishermen numbers for England, which are reflected in England & Wales and UK figures.

Note: Additional data on UK fishermen are available for download from the MMO website as supplementary Tables 2.6a and 2.6b.

Chart 2.12 shows the total number of fishermen for each administration port in the UK. In 2016:

- Plymouth is the administration port with the largest number of fishermen in the UK (1,000).
- The largest number of part-time fishermen is found on vessels administered by Milford Haven (320).
- Fraserburgh has the largest number of fishermen in Scotland (780).
- Ports with higher numbers of vessels tend to have higher numbers of fishermen (see Chart 2.5).
- Ports with greater total vessel power tend to have a higher number of fishermen (Chart 2.7).

Chart 2.12: Fishermen numbers by administration port: 2016



Accidents, lost vessels and fatalities

Figures on accidents involving fishing vessels and fishermen are provided by the Marine Accident Investigation Branch, part of the Department for Transport (see Table 2.7).

TABLE 2.7 Number of accidents, lost vessels and fatalities involving UK fishing vessels: 2006 to 2016

Accident type	2006	2007	2008	2009 [a]	2010	2011	2012	2013	2014	2015	2016
Capsize/Listing	5	2	2	2	6	7	5	3	3	2	-
Collision	12	18	17	10	15	11	16	12	14	14	10
Contact	3	4	2	6	4	4	4	3	3	1	4
Fire/Explosion	15	9	11	7	10	15	11	5	1	2	2
Flooding/Foundering	34	33	34	31	25	26	23	22	15	6	18
Grounding	24	24	28	26	16	25	21	23	13	19	15
Heavy Weather Damage	1	5	-	3	1	1	1	-	-	-	-
Machinery Failure[b]	240	213	156	140	184	195	174	180	104	69	114
Missing Vessel	1	-	-	-	-	-	-	-	-	1	-
Person Overboard	14	8	7	13	9	15	5	8	4	3	7
Other	-	1	-	-	2	-	-	-	-	1	-
Total accidents	**349**	**317**	**257**	**238**	**272**	**299**	**260**	**256**	**157**	**118**	**170**
Vessel losses	**19**	**21**	**21**	**15**	**14**	**24**	**9**	**18**	**12**	**13**	**8**
Injuries	**69**	**64**	**60**	**75**	**45**	**58**	**50**	**33**	**46**	**35**	**40**
Fatalities[c]	**16**	**8**	**8**	**13**	**5**	**8**	**6**	**4**	**8**	**7**	**9**

Source: Marine Accident Investigation Branch

Note: The data in this table are official statistics but are not subject to National Statistics accreditation.

(a) From 2009 these figures include workers on board vessels who are not crew members.

(b) For the Marine Accident Investigation Branch Annual Report 2013 accidents by machinery failure are now sepearated into two categories, Damage to ship and equipment or Loss of control. Further details can be found on their webiste (www.maib.gov.uk).

(c) Number of crew deaths on UK registered fishing vessels.

UK over 10m fishing fleet effort

The effort data tables relating to activity in the Cod Recovery Zone (CRZ) and Western Waters (WW) Regime contained within this publication were updated in 2013 to incorporate more information on effort limits and percentage uptake. The data tables now include information on other Member States for comparative purposes. This approach reflects that of the quota table (Table 3.12) in Chapter 3. The data shown in the tables, unless indicated otherwise, reflect the data held on the Commission's database (FIDES). Table 2.8 relating to activity in the Sole Recovery Zone (SRZ) has retained the same format as these data are not submitted to the European Commission on an annual basis like other effort schemes, and instead are requested by the Commission on an ad hoc basis in line with their requirements. This means that comparable data for other Member States related to the sole recovery regime are not available.

Since 2002, fishing effort (in kW days) by the over 10 metre fleet has decreased by 41 per cent. (Chart 2.13). This reduction is primarily due to a decline in effort in the demersal trawl and seine segment of 49 per cent (Chart 2.14). The beam trawl segment, which has relatively lower levels of effort, fell by 59 per cent over this period. Falls in effort over this period were recorded for all other gear types except those using dredges and some polyvalent gears.

This reduction in effort in the demersal trawl and seine segment was largely due to decommissioning exercises carried out by UK fisheries administrations in 2001-2002 and 2003. The latter focussed on removing fleet capacity targeting cod in the Cod Recovery Zone (a combination of North Sea, West of Scotland and Irish Sea fishing areas), and was particularly focussed on vessels that used demersal trawls fishing for whitefish. A further exercise was carried out to remove excess beam trawl fishing capacity in the Western Channel fishing area (ICES division VIIe), as part of the recovery regime for sole. This removed 8 active vessels in this area.

More information on the control of fishing effort under the cod and sole recovery regimes, and in the Western Waters, is given below.

Chart 2.13: UK fishing fleet effort in kW days at sea: 2002 to 2016

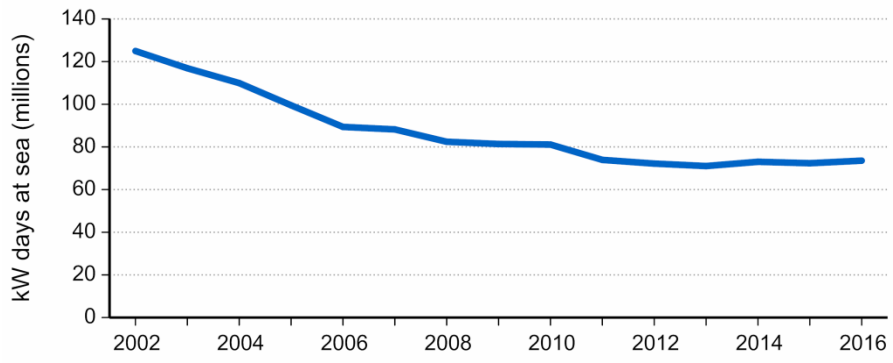
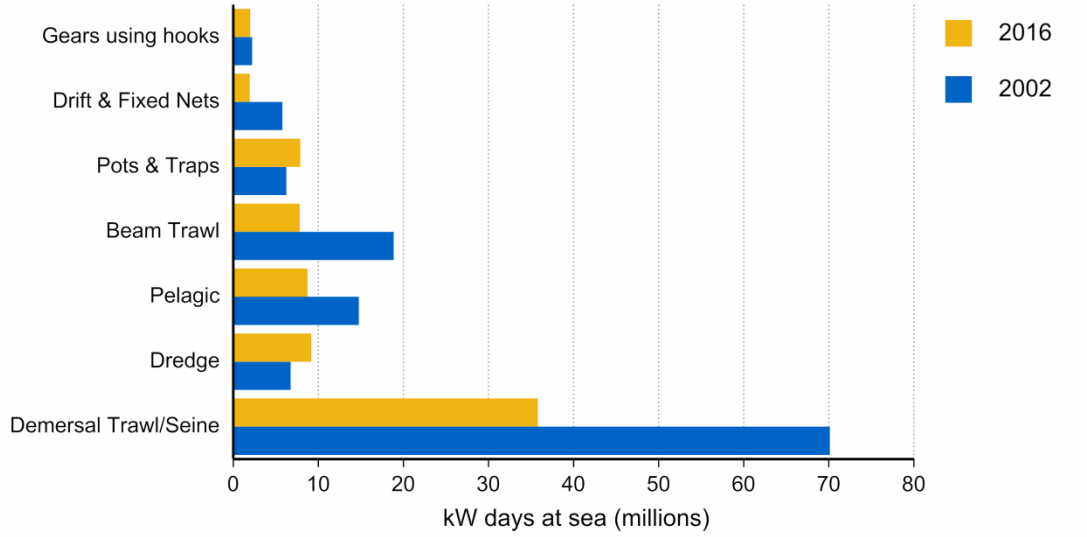


Chart 2.14: UK fishing fleet effort in kW days at sea by gear type: 2002 and 2016



Note: Data for Charts 2.13 and 2.14 are available for download from the MMO website as supplementary Table 2.11.

Effort of vessels fishing in the Sole Recovery Zone (SRZ)

As part of the measures for recovery of sole stocks, a Sole Recovery Zone was established from February 2004 to apply effort controls to vessels of 10 metres or over using certain gears in the Western Channel (ICES division VIIe). The regimes which applied in 2010 are described in Annex IIC of Council Regulations (EC) Nos 43/2009 and 53/2010.

Limits apply on the number of days spent at sea by vessels fishing with beam trawls of mesh size greater than or equal to 80mm and by vessels using static nets (including gill nets, trammel nets and tangle nets) with mesh size less than 220mm. The Marine Management Organisation controls effort in the Western Channel by allocating days for fishing with these gears to eligible vessels.

Table 2.8 shows the number of vessels fishing with regulated beam trawls in the Western Channel and the effort exerted.

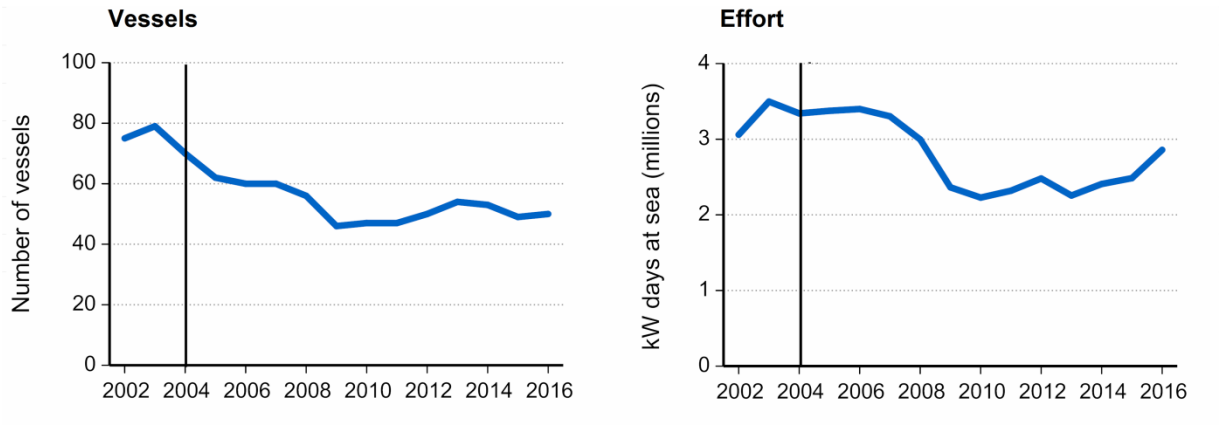
Table 2.8 Beam Trawl activity in the Sole Recovery Zone: 2002 to 2016

Year	Vessels	Days at sea	kW days
2002	75	6,474	3,059,302
2003	79	7,205	3,497,479
2004	70	6,285	3,341,233
2005	62	6,309	3,375,415
2006	60	6,224	3,398,988
2007	60	6,665	3,302,943
2008	56	6,319	2,997,036
2009	46	4,963	2,363,694
2010	47	5,071	2,227,990
2011	47	5,685	2,318,843
2012	50	6,652	2,480,724
2013	54	6,121	2,255,310
2014	53	6,116	2,407,901
2015	49	6,246 [R]	2,485,062 [R]
2016	50	6,786	2,859,242

Source: Fisheries Administrations in the UK

From 2002 to 2004 the number of vessels beam trawling in the Western Channel decreased by 7 per cent; however, fishing effort (kW days) increased by 9 per cent. Since the implementation of the SRZ, the number of vessels beam trawling in the Western Channel has decreased by 29 per cent and effort (kW days) has decreased by 14 per cent (Chart 2.15). Reasons for this may include the effect of decommissioning schemes as well as reduced fishing opportunities owing to effort and quota controls. However, the number of vessels has increased occasionally in recent years.

Chart 2.15: Fleet size and effort (kW days) of vessels using beam trawls in the Sole Recovery Zone: 2002 to 2016



Note: The Sole Recovery Regime was established in 2004.

Effort of vessels fishing in the Cod Recovery Zone (CRZ)

As part of the measures for recovery of cod stocks, a Cod Recovery Zone was established from February 2003 to apply effort controls to vessels of 10 metres or over using specified gears in the North Sea and West of Scotland. The regime was extended in 2004 to include the Irish Sea (ICES division VIIa) and the Eastern Channel (ICES division VIId). The effort controls of the CRZ were repealed in November 2016 by EU Parliament and Council regulation No 2016/2094. Under this amended regulation individual vessels' effort with regulated gears is unlimited but the combined engine power capacity of the fleet is capped at 2006 or 2007 levels in each of the four management areas.

The regime in operation during 2016 (before repeal) was established by Council Regulation (EC) No 1342/2008. The CRZ included four sea areas: Kattegat, Irish Sea (ICES division VIIa), North Sea (ICES division IIIa excluding Kattegat; ICES sub-area IV; EU waters of ICES division IIa; ICES division VIId) and West of Scotland (ICES division VIa and EU waters of ICES division Vb). Nine regulated gears were defined in the CRZ regulations, identified as causing significant cod mortality. Up to repeal UK Fisheries Administrations operated schemes to limit the number of days spent fishing with these gears in each sea area. Effort was allocated to each gear type in each area based on the member state's historic track record in that gear/area combination.

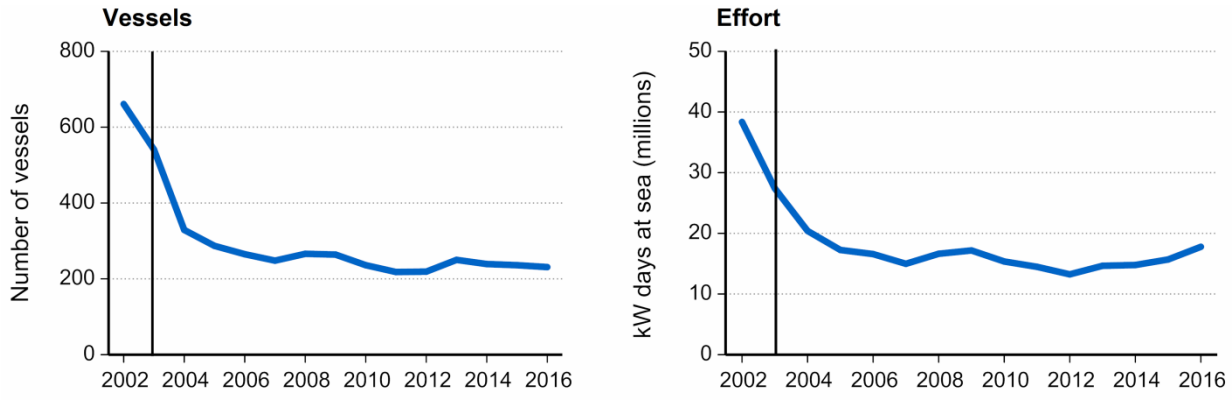
Surplus effort for one gear type was transferable to other gear groups in the same CRZ area. Transfers of effort between CRZ areas were prohibited. Any inter-gear transfers of effort required an adjustment to account for the differences in the levels of cod mortality between the gears in question. The TR1 and TR2 gear groups were merged into a single group in the North Sea under Implementing Regulation No 2324/2015 in 2015. This merger removed the cod mortality adjustments previously required to transfer surplus TR2 effort to TR1. This merger increased available TR1 effort, as TR2 effort was consistently underutilised when compared with TR1 effort. The overall trends for these important gear groups are discussed below.

Gear type TR1

Gear type TR1 includes bottom trawls, Danish seines and similar towed gear, excluding beam trawls, of mesh size greater than or equal to 100 mm. Gears of this type are typically used to target whitefish, including cod.

From 2002 to the end of 2003 the number of vessels fishing in the CRZ using gear type TR1 fell by 18 per cent (Chart 2.16). Over the same period, effort (kW days) decreased by 29 per cent, in part due to decommissioning schemes targeting the demersal fleet. Since the implementation of the CRZ, the number of vessels using gear type TR1 has decreased by 57 per cent and effort (kW days) by 35 per cent.

Chart 2.16: Fleet size and effort (kW days) of vessels using gear type TR1 in the Cod Recovery Zone: 2002 to 2016



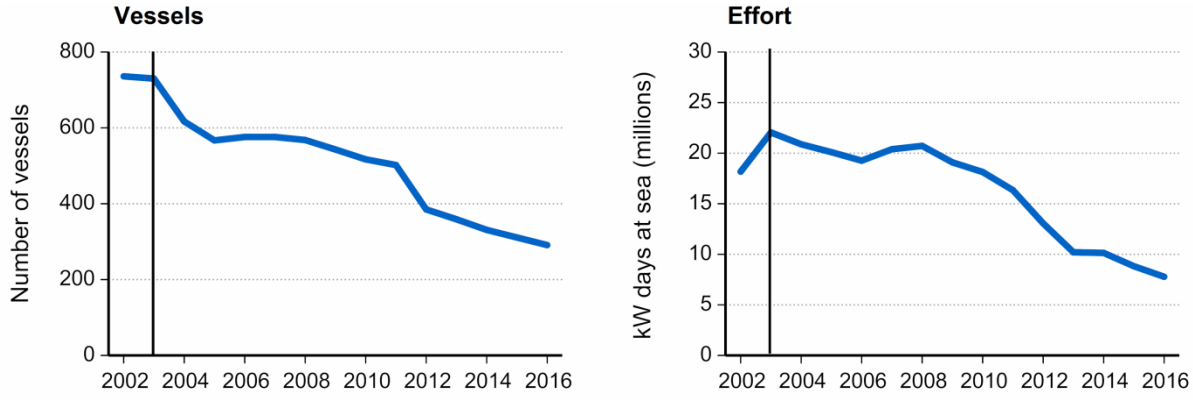
Note: The Cod Recovery Regime was established in 2003, initially limited to the North Sea and West of Scotland, but was expanded in 2004 to include the Irish Sea (ICES division VIIa) and the Eastern Channel (ICES division VIId).

Gear type TR2

Gear type TR2 includes bottom trawls, Danish seines and similar towed gear, excluding beam trawls, of mesh size greater than or equal to 70 mm and less than 100 mm. Gears of this type are typically used to target prawns (*nephrops*), but may also catch significant amounts of cod.

From 2002 to the end of 2003 the number of vessels fishing in the CRZ using gear type TR2 decreased by 1 per cent while effort (kW days) increased by 21 per cent. Since the implementation of the CRZ, the number of vessels using gear type TR2 has decreased by 60 per cent and effort (kW days) decreased by 65 per cent (Chart 2.17).

Chart 2.17: Fleet size and effort (kW days) of vessels using gear type TR2 in the Cod Recovery Zone: 2002 to 2016



Note: The Cod Recovery Regime was established in 2003, initially limited to the North Sea and West of Scotland, but was expanded in 2004 to include the Irish Sea (ICES division VIIa) and the Eastern Channel (ICES division VIId).

Table 2.9 Effort of UK 10m and over vessels fishing in the Cod Recovery Zone: 2016

kW days

Gear	Irish Sea	North Sea	West of Scotland	All CRZ Areas
	VIIa	*IIa, IV, VIId*	*VIa, Vb*	
BT1	-	257,468	-	257,468
BT2	1,326	3,002,948	2,816	3,007,089
GN1	1,519	286,285	817	288,621
GT1	-	9,925	-	9,925
LL1	2,813	492,013	563,381	1,058,207
TR1	199,659	15,015,302	2,564,513	17,779,474
TR2	2,443,488	2,664,819	2,672,371	7,780,678
Total Regulated Gears	**2,648,805**	**21,728,759**	**5,803,897**	**30,181,461**

Source: Fisheries administrations in the UK

Effort of vessels fishing in the Western Waters

To prevent growth in fishing activity in the sea areas to the west of the UK, Ireland, Spain, Portugal and Morocco an area (the 'Western Waters') was established from November 2003 in which fishing effort is limited. The regime was established by Council Regulation (EC) No 1954/2003 and remains in force.

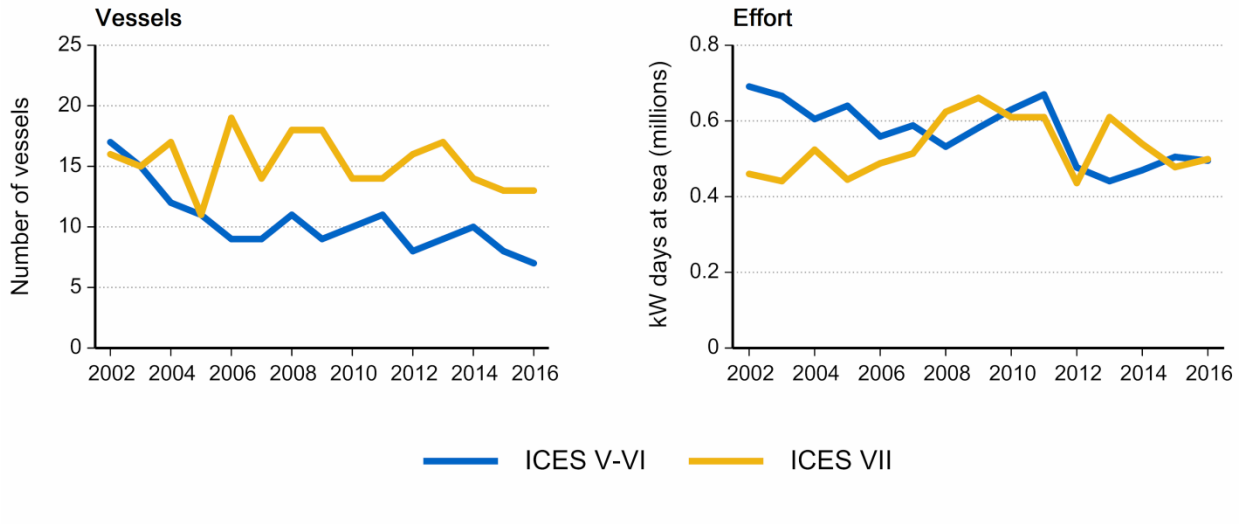
The Western Waters regime covers nine sea areas. Regulated activity is permitted for UK registered vessels in four of these. Ceilings exist on the maximum fishing effort to be exerted by 15 metres and over vessels targeting certain species in ICES sub-areas V and VI; ICES sub-area VII; and ICES sub-area VIII. The fourth area is a region to the south and west of Ireland with high concentrations of juvenile hake known as the Biologically Sensitive Area (BSA). Ceilings in this region apply to fishing effort exerted by 10 metres and over vessels.

The information included in this section represents that which is submitted to the Commission under the Western Waters regime. Within this reporting regime, the UK and other Member States are required to submit monthly reports on fishing effort.

Trips targeting crabs

Trips targeting edible crabs and spider crabs are covered by the Western Waters regime. From 2002 to 2016 the number of vessels targeting crabs in ICES sub-areas V and VI has fallen from 17 to 7 while the number in ICES sub-area VII has fluctuated from 16 vessels in 2002 to 13 vessels in 2016. Effort levels have fluctuated over this period and were 28 per cent lower for ICES sub-areas V and VI and were 8 per cent higher for ICES sub-area VII (Chart 2.18).

Chart 2.18: Fleet size and effort (kW days) of vessels targeting crabs in the Western Waters: 2002 to 2016

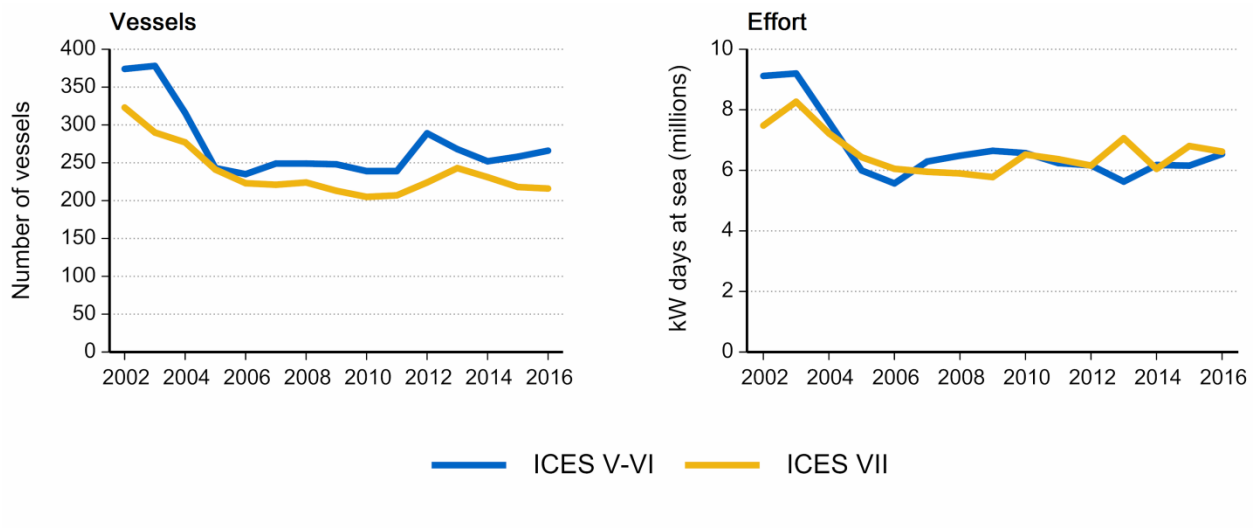


Trips targeting demersal species

The Western Waters regime places limits on the effort exerted on trips targeting demersal species excluding certain deep sea species.

From 2002 to 2016 the number of vessels targeting demersal species in ICES sub-areas V and VI decreased by 29 per cent and the effort fell by 28 per cent. For ICES sub-area VII, the number of vessels fell by 33 per cent although effort only fell by 11 per cent. These reductions may be partly attributed to decommissioning schemes and limited fishing opportunities due to effort and quota controls.

Chart 2.19: Fleet size and effort (kW days) of vessels targeting demersal species in the Western Waters: 2002 to 2016



Trips targeting scallops

From 2002 to 2016 the number of vessels targeting scallops in ICES sub-areas V and VI decreased by 34 per cent while the number in ICES sub-area VII increased by 18 per cent. Over the same period, effort in ICES sub-areas V and VI was halved, but effort in ICES sub-area VII increased by almost a quarter. This increase is partly due to diversion of activity from other sea areas as well as increased activity by vessels already fishing in ICES sub-area VII.

Chart 2.20: Fleet size and effort (kW days) of vessels targeting scallops in the Western Waters: 2002 to 2016

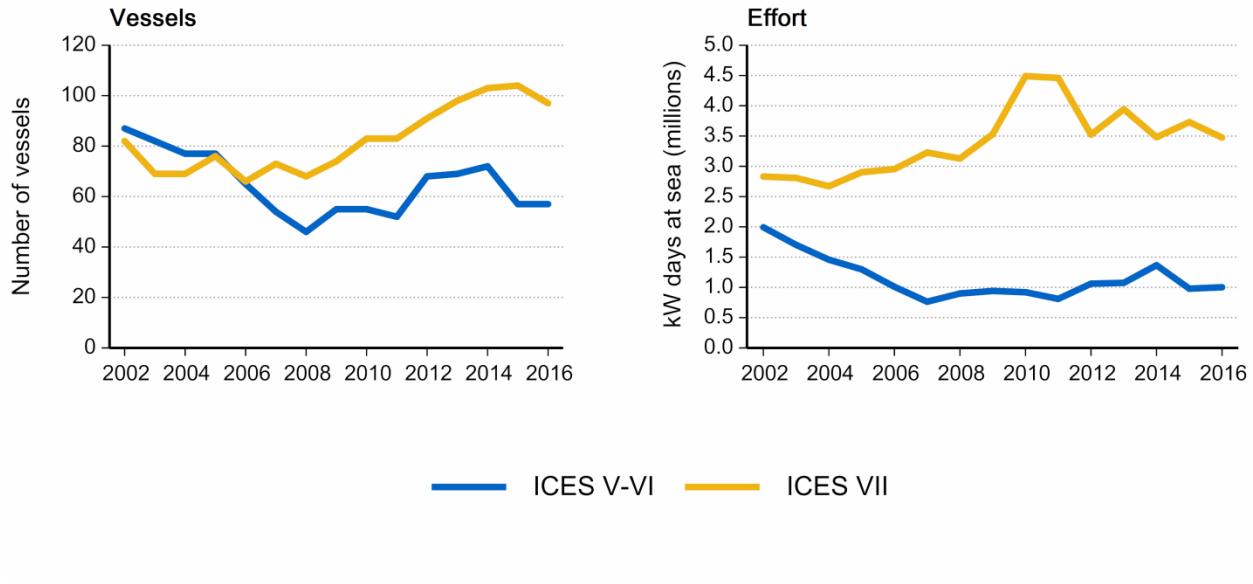


Table 2.10 Effort of UK 15m and over vessels fishing in the Western Waters: 2016

kW days

Species	ICES Area		UK	Belgium	Denmark	France	Germany	Ireland	Netherlands	Portugal	Spain
Crabs	**V, VI**	Limit	702,292	-	-	-	-	465,000	-	-	-
		Effort	494,920	-	-	-	-	136,292	-	-	-
		Uptake %	70%	-	-	-	-	29%	-	-	-
	VII	Limit	543,366	-	-	1,946,719	-	-	-	-	-
		Effort	498,522	-	-	273,571	-	-	-	-	-
		Uptake %	92%	-	-	14%	-	-	-	-	-
Demersal	**V, VI**	Limit	24,017,229	58,452	215,234	11,649,154	186,370	2,324,932	-	-	2,460,000
		Effort	6,538,511	-	-	2,673,705	67,340	938,325	-	-	818,388
		Uptake %	27%	0%	0%	23%	36%	40%	-	-	33%
	VII	Limit	25,786,266	6,996,910	-	40,657,844	233,560	7,904,120	750,279	-	17,957,785
		Effort	6,620,001	4,784,907	-	13,820,924	103,001	5,119,122	632,769	-	4,315,299
		Uptake %	26%	68%	-	34%	44%	65%	84%	-	24%
	VIII	Limit	218,406	942,465	-	24,963,097	4,952	-	203,327	2,552,222	33,100,000
		Effort	29,414	562,185	-	10,058,227	-	-	-	413,901	15,138,956
		Uptake %	13%	60%	-	40%	0%	-	0%	16%	46%
	BSA	Limit	3,061,485	135,432	-	9,559,653	8,326	7,154,490	-	-	5,642,215
	(Biologically	Effort	799,382	1,350	-	426	-	3,873,704	-	-	1,350,399
	Sensitive Area)	Uptake %	26%	1%	-	0%	0%	54%	-	-	24%
Scallops	**V, VI**	Limit	1,974,425	-	-	-	-	-	-	-	-
		Effort	1,001,716	-	-	-	-	-	-	-	-
		Uptake %	51%	-	-	-	-	-	-	-	-
	VII	Limit	4,035,619	354,066	-	6,727,932	-	525,012	155,157	-	-
		Effort	3,475,450	160,890	-	3,240,205	-	360,336	-	-	-
		Uptake %	86%	45%	-	48%	-	69%	0%	-	-

Source: European Commission

3 Landings

Introduction

In 2016, UK vessels landed 701 thousand tonnes of sea fish (including shellfish) into the UK and abroad with a value of £936 million. This is a 1 per cent decrease in quantity but an increase of 21 per cent in value compared with the previous year. Increases in value have been seen across the majority of species, in particular for key pelagic and shellfish species.

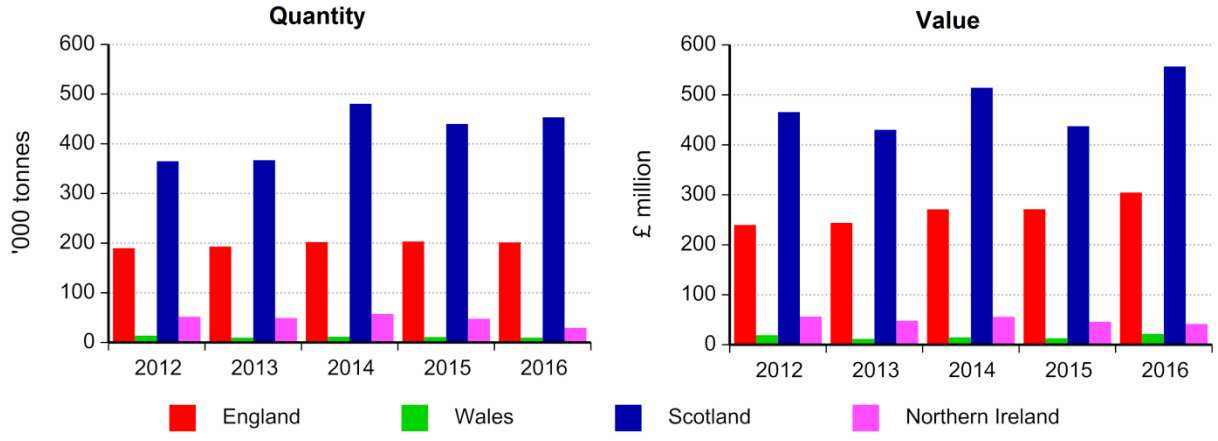
This chapter provides a comprehensive overview of the weight and value of landings by UK vessels into the UK and abroad and by foreign vessels into the UK. The publication includes breakdowns of landings data according to:

- Vessel nationality
- Port and country of landing
- Area of capture and fishing gear used
- Vessel size and sectoral membership

Data are also provided on landings and quota uptake for all EU member states. All **landings data are given in terms of live weight**. The calculation of average prices excludes landings with zero value to better reflect the price of fish.

All tables presented here are available to download as spreadsheets from the MMO website. Supplementary tables showing more detail can also be found on the website. Also available for download is a summary report showing high level estimates of UK landings by Exclusive Economic Zone of capture.

Chart 3.1: Quantity and value of landings into the UK and abroad by UK vessels by vessel nationality: 2012 to 2016



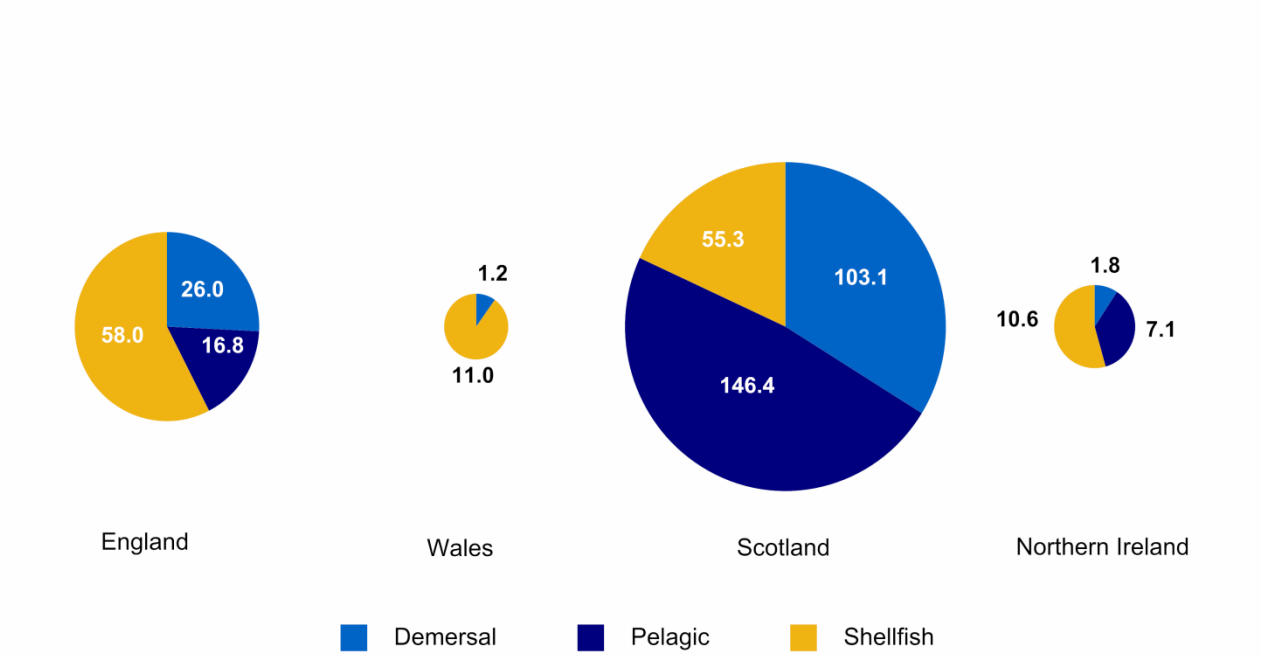
Landings by all UK vessels and by foreign vessels into the UK

Sixty four per cent of fish caught by the UK fleet were landed in the UK. In terms of value, 74 per cent of UK vessel landings were made in the UK. Chart 3.1 shows the landings into the UK and abroad by vessel nationality. Scottish vessels accounted for 65 per cent of the weight and 59 per cent of the value of landings by UK vessels (see Table 3.1). English vessels accounted for 29 per cent of the weight and 33 per cent of the value. The Northern Irish fleet caught 4 per cent of landings by weight and value. Welsh vessels caught 1 per cent of the landings and 2 per cent of the value. Island fleets caught the remaining 1 per cent of landings and value.

Landings by UK vessels into the UK rose by 7 per cent to 446 thousand tonnes in 2016. Shellfish have, in recent years, accounted for the largest share of these landings. But since 2014, with the increase in mackerel quota and resultant catch, pelagic landings now have the highest share (38 per cent) but only 18 per cent of the value. Relatively high value shellfish and demersal species account for 32 and 30 per cent of landings respectively and 46 and 36 per cent in terms of value.

Chart 3.2 shows a breakdown of landings by species group into England, Wales, Scotland and Northern Ireland by UK vessels. The largest amount, 305 thousand tonnes, was landed into Scotland with a value of £445 million. Landings into England were 101 thousand tonnes with a value of £186 million.

Chart 3.2: Landings into UK countries by UK vessels: 2016 ('000 tonnes)



Breakdowns by species of landings into the UK by UK vessels, landings into the UK by foreign vessels and landings abroad by UK vessels are given in Tables 3.2 to 3.6. In 2016:

- 36 per cent of all landings by the UK fleet were made abroad, down from 41 per cent in 2015 (see Tables 3.5 and 3.6). Forty four per cent of all our landings abroad were of mackerel. Overall, 54 per cent of pelagic fish were landed abroad compared with 27 per cent of demersal fish and 5 per cent of shellfish.
- The UK fleet accounted for 89 per cent of all fish landed into the UK (see Tables 3.2 and 3.4). Foreign landings into the UK increased from 46 thousand tonnes in 2015 to 53 thousand tonnes in 2016. Key species were mackerel, hake, herring and saithe.
- Shellfish, which are largely exempt from quotas, formed the majority of landings by the UK fleet into England, Wales and Northern Ireland. Pelagic fish had the highest share of landings into Scotland (see Tables 3.2a to 3.2d and Chart 3.2).

TABLE 3.1 Landings into the UK and abroad by UK vessels: 2012 to 2016

	Quantity ('000 tonnes)					Value (£ million)				
	2012	**2013**	**2014**	**2015**	**2016**	**2012**	**2013**	**2014**	**2015**	**2016**
(i) **Vessels administered in the UK**										
Demersal	162.4	179.4	169.8	169.1 R	180.4	272.0	281.2	299.5	293.7 R	336.6
Pelagic	302.1	292.1	436.6	389.8	369.4	214.4	191.4	271.5	206.6	261.0
Shellfish	163.6	155.3	151.6 R	149.7 R	151.3	301.6	268.7	293.1	276.0 R	338.6
Total Fish	**628.0**	**626.8**	**757.9**	**708.6** R	**701.1**	**787.9**	**741.3**	**864.1**	**776.3** R	**936.2**
(ii) Vessels administered in England										
Demersal	63.8	73.8	77.9	74.4 R	81.4	124.0	136.8	151.2	144.9 R	161.6
Pelagic	71.1	59.7	66.2	68.5	64.8	25.2	18.6	25.3	30.3	31.4
Shellfish	55.0	59.5	58.1	60.4	55.5	90.6	88.3	94.6 R	96.0 R	111.7
Total Fish	189.9	193.1	202.1	203.3 R	201.6	239.8	243.8	271.1 R	271.2 R	304.7
(iii) Vessels administered in Wales										
Demersal	1.0	1.0	1.2	1.3	1.1	2.7	2.1	2.8	2.9	3.0
Pelagic	..	..	..	..	..	..	..	..	..	..
Shellfish	12.8	8.8	10.6	9.7	8.8	16.3	9.7	12.1	10.2	18.6
Total Fish	13.8	9.8	11.8	11.1 R	9.9	19.0	11.8	14.9	13.1 R	21.7
(iv) Vessels administered in Scotland										
Demersal	95.8	102.1	88.7	90.8	95.4	143.1	139.4	143.2 R	142.8	168.7
Pelagic	199.7	202.6	330.4	291.5	294.4	166.1	153.2	220.2	160.1	222.3
Shellfish	69.5	62.3	61.6	57.8 R	63.6	156.6	137.4	150.8 R	134.4 R	165.8
Total Fish	365.0	367.0	480.7	440.1 R	453.3	465.7	430.0	514.1 R	437.4 R	556.9
(v) Vessels administered in Northern Ireland										
Demersal	1.7	2.3	1.8	2.3	2.4	2.1	2.5	2.1	2.5	2.7
Pelagic	31.2	29.8	40.0	29.8	10.2	23.1	19.6	26.0	16.1	7.3
Shellfish	18.7	17.3	15.5	15.7 R	16.8	31.2	25.9	27.7	27.5 R	31.6
Total Fish	51.7	49.4	57.3	47.8 R	29.4	56.3	48.0	55.8	46.1 R	41.6
(vi) Vessels administered in the Islands (a)										
Demersal	0.1	0.1	0.1	0.2	0.2	0.2	0.4	0.3	0.6	0.5
Pelagic	..	..	..	..	..	..	..	..	..	..
Shellfish	7.6	7.4	5.7	6.1	6.6	6.9	7.3	7.9	8.0	10.8
Total Fish	7.7	7.5	5.9	6.3	6.8	7.2	7.7	8.2	8.6	11.3

Source: Fisheries Administrations in the UK

(a) Jersey, Guernsey and the Isle of Man.

Note: Additional data on UK vessel landings are available for download from the MMO website as supplementary Table 3.1a.

TABLE 3.2 Landings into the UK by UK vessels: 2012 to 2016 [a]

	Quantity ('000 tonnes)					Value (£ million)				
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
Bass	0.8	0.8	1.0	0.6	0.5	5.6	5.6	7.3	5.4 R	4.8
Brill	0.3	0.3	0.3	0.3	0.4	1.6	1.6	1.6	1.6	2.0
Cod	12.7	13.0	14.0	15.4	20.7	24.9	25.8	27.8	29.5	38.0
Dogfish	0.6	0.7	0.7	1.6	1.7	0.1	0.2	0.1	0.3	0.4
Gurnard	1.8	1.8	1.3	1.6	1.8	1.2	1.2	0.9	1.0	1.2
Haddock	34.0	38.7	35.4	32.4	33.1	35.7	43.5	49.3	44.2	43.9
Hake	6.5	6.5	8.5	8.8	11.4	13.5	16.1	19.7	20.9	26.9
Halibut	0.1	..	..	0.1	0.1	0.6	0.5	0.4	0.4	0.9
Lemon Sole	2.5	2.5	2.3	1.8	2.0	6.7	7.6	7.9	7.3	8.3
Ling	4.1	4.0	4.4	4.1	4.9	5.6	5.5	5.4	5.3	7.0
Megrim	3.3	4.0	3.3	3.1	3.2	8.7	9.1	8.6	7.6	9.0
Monks or Anglers	10.3	10.1	11.4	14.3	16.4	31.9	30.3	31.4	34.8	46.8
Plaice	3.4	4.1	3.6	3.5	4.7	3.7	4.0	3.6	3.6	5.3
Pollack (Lythe)	1.8	1.6	1.9	1.6	1.9	3.9	3.4	3.4	3.1	4.3
Saithe	11.0	12.9	11.1	9.9	10.0	11.3	11.0	10.2	8.5	10.3
Sand Eels	..	..	..	..	..	..	..	..	..	..
Skates and Rays	2.6	2.6	2.4	2.4	2.4	3.5	3.3	2.7	2.8	3.0
Sole	1.7	1.8	1.8	1.4	1.5	13.9	12.8	12.4	10.4 R	13.3
Turbot	0.5	0.4	0.5	0.5	0.5	3.6	3.7	4.2	4.2	4.7
Whiting	10.8	12.0	11.1	10.7	10.3	10.9	11.5	11.8	11.0	10.8
Witch	0.9	0.8	0.8	0.6	0.8	1.1	0.8	0.7	0.7	1.0
Other Demersal [b]	3.4	3.9	4.2	3.4	3.6	4.8	5.5	5.7	6.2	8.9
Total Demersal	**112.9**	**122.6**	**120.0**	**118.4** R	**132.1**	**193.0**	**203.0**	**215.3**	**208.9** R	**251.1**
Blue Whiting	6.4	8.2	9.7	12.1	11.9	1.8	1.8	1.3	2.0	2.4
Herring	38.2	37.5	38.3	38.6	40.5	18.6	13.6	10.5	13.4	25.3
Horse Mackerel	8.9	2.5	3.1	2.9	0.9	2.8	0.9	1.1	1.3	0.3
Mackerel	67.8	78.2	126.2	94.8	103.9	63.8	70.1	104.1	60.6	88.8
Sardines	4.3	3.7	3.4	4.2	8.0	1.1	1.0	0.8	1.6	2.6
Other Pelagic	6.8	4.8	5.7	3.8	5.3	1.5	1.0	2.1	0.8	1.3
Total Pelagic	**132.3**	**134.9**	**186.3**	**156.4**	**170.4**	**89.5**	**88.4**	**119.9**	**79.6**	**120.7**
Cockles	2.2	10.1	10.2	11.2	5.0	1.5	5.3	7.9	5.7	3.5
Crabs	29.7	29.2	32.6	29.1	32.3	38.6	39.0	44.4 R	39.2	46.9
Cuttlefish	5.3	3.7	3.1	6.0	5.0	10.7	6.5	6.5	10.6	14.0
Lobsters	3.1	3.0	3.4	3.1	3.3	31.0	29.9	33.5	32.2 R	39.5
Mussels	0.7	0.5	0.2	1.0	1.6	0.4	0.2	0.1	0.8	0.2
Nephrops	32.6	28.3	30.3	25.7	30.7	110.4	86.0	98.5	81.9 R	100.5
Scallops	53.6	48.7	38.6	40.8 R	38.4	67.4 R	62.6	58.3	64.3 R	74.1
Shrimps and Prawns	1.0	0.9	0.6	0.3	0.8	2.4	2.4	1.4	0.8	3.0
Squid	1.8	1.8	2.9	1.8	2.0	6.4	7.0	9.2	6.4	8.2
Whelks	16.4	20.0	19.8	20.9	22.7	11.1	13.7	16.2 R	18.6	22.9
Other Shellfish	2.4	1.8	1.1	1.3	1.2	5.9	5.4	3.7	4.0	4.7
Total Shellfish	**148.8**	**148.0**	**142.8**	**141.2** R	**143.1**	**285.6**	**257.9**	**279.6**	**264.6** R	**317.6**
Total All Species	**394.0**	**405.5**	**449.1**	**415.9** R	**445.6**	**568.2**	**549.3**	**614.8**	**553.0** R	**689.4**

Source: Fisheries Administrations in the UK

(a) Landings data include transhipments and Islands figures.

(b) Includes fish roes and livers.

TABLE 3.2a Landings into England by UK vessels: 2012 to 2016 [(a)]

	Quantity ('000 tonnes)					Value (£ million)				
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
Bass	0.8	0.7	0.9	0.6	0.5	5.1	5.1	6.7	4.9 [R]	4.3
Brill	0.3	0.3	0.3	0.3	0.3	1.5	1.5	1.5	1.6	1.9
Cod	1.5	1.0	1.0	1.3	4.2	2.9	2.0	1.8	2.2	3.7
Dogfish	0.5	0.3	0.3	1.0	1.2	0.1	0.1	0.1	0.2	0.3
Gurnard	1.3	1.4	0.9	1.0	1.2	1.0	0.9	0.7	0.7	0.9
Haddock	2.7	1.6	0.9	0.9	0.7	3.0	2.2	1.5	1.4	1.1
Hake	0.7	0.8	0.9	1.2	1.3	1.1	1.7	1.8	2.2	2.7
Halibut	..	..	..	..	..	..	..	..	0.1	0.1
Lemon Sole	1.9	1.8	1.7	1.1	1.2	5.3	5.7	5.8	4.9	5.3
Ling	0.3	0.3	0.4	0.2	0.3	0.4	0.4	0.4	0.3	0.3
Megrim	0.8	1.2	1.0	1.0	0.9	1.5	2.0	2.4	2.3	2.3
Monks or Anglers	3.1	3.0	3.4	3.4	3.3	9.0	9.1	8.5	7.9	9.3
Plaice	2.4	2.4	2.2	1.8	2.5	2.9	2.7	2.5	2.3	3.1
Pollack (Lythe)	1.3	1.2	1.5	1.0	1.4	2.9	2.5	2.7	2.1	3.3
Saithe	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1
Sand Eels	..	..	..	..	..	..	..	..	..	..
Skates and Rays	1.8	1.8	1.6	1.5	1.6	2.6	2.5	1.9	1.9	2.0
Sole	1.7	1.8	1.8	1.4	1.5	13.6	12.7	12.3	10.2	13.2
Turbot	0.4	0.4	0.5	0.5	0.5	3.1	3.2	3.7	3.6	4.2
Whiting	1.9	1.9	1.7	1.6	1.5	1.4	1.3	1.3	1.1	1.1
Witch	0.1	..	..	..	..	..	..	..	..	..
Other Demersal [(b)]	2.2	2.0	2.3	1.6	1.8	2.9	2.6	3.0	2.3	2.8
Total Demersal	**25.7**	**24.0**	**23.4**	**21.6**	**26.0**	**60.4**	**58.5**	**58.7**	**52.5** [R]	**62.0**
Blue Whiting	0.1	-	-	..	-	..	-	-	..	-
Herring	0.5	3.9	2.9	3.1	2.5	0.2	1.1	1.0	1.0	1.1
Horse Mackerel	7.6	1.9	2.3	2.2	0.9	2.1	0.5	0.7	0.8	0.3
Mackerel	2.5	1.2	1.8	2.6	2.3	2.4	1.4	1.6	2.0	1.9
Sardines	4.3	3.7	3.4	4.2	8.0	1.1	1.0	0.8	1.6	2.6
Other Pelagic	5.0	3.8	4.1	2.7	3.1	1.1	0.8	1.7	0.5	0.8
Total Pelagic	**19.9**	**14.5**	**14.5**	**14.8**	**16.8**	**6.8**	**4.8**	**5.9**	**5.9**	**6.7**
Cockles	2.2	10.1	10.2	11.2	5.0	1.5	5.3	7.9	5.7	3.5
Crabs	13.4	13.6	15.8	14.1	16.1	17.4	18.2	21.1	18.9	22.7
Cuttlefish	5.3	3.6	3.1	6.0	5.0	10.7	6.5	6.5	10.6	14.0
Lobsters	1.7	1.7	1.8	1.7	1.8	15.7	16.4	17.8	17.8	22.2
Mussels	0.4	0.2	0.1	0.1	..	0.1	..	..	..	..
Nephrops	3.3	3.5	3.2	2.1	3.4	10.8	10.7	10.3	7.0	11.3
Scallops	19.6	14.3	13.4	14.3	11.6	28.2	22.3	22.0	25.9	24.1
Shrimps and Prawns	1.0	0.9	0.6	0.3	0.8	2.3	2.3	1.3	0.8	3.0
Squid	0.3	0.6	0.7	0.5	0.3	2.0	2.7	3.0	2.2	1.7
Whelks	10.9	13.7	13.8	13.8	13.3	7.4	9.1	11.4 [R]	12.2	13.3
Other Shellfish	1.0	0.7	0.5	0.8	0.6	1.9	1.3	1.2	1.8	1.6
Total Shellfish	**59.0**	**62.9**	**63.3**	**64.9**	**58.0**	**98.0**	**94.8**	**102.5** [R]	**103.0** [R]	**117.5**
Total All Species	**104.6**	**101.4**	**101.2**	**101.3** [R]	**100.8**	**165.2**	**158.0**	**167.1** [R]	**161.4** [R]	**186.2**

Source: Fisheries Administrations in the UK

(a) Landings data include transhipments.

(b) Includes fish roes and livers.

TABLE 3.2b Landings into Wales by UK vessels: 2012 to 2016 [(a)]

	Quantity ('000 tonnes)					Value (£ million)				
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
Bass	0.1	0.1	0.1	0.1	0.1	0.4	0.5	0.6	0.5	0.5
Brill	..	..	..	..	..	..	..	..	..	..
Cod	..	..	..	..	..	..	0.1	0.1	..	..
Dogfish	..	..	..	..	0.1	..	..	..	..	..
Gurnard	..	..	..	..	..	..	..	..	..	..
Haddock	0.1	..	..	..	..	0.1	..	..	..	..
Hake	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2
Halibut	-	-	-	-	-	-	-	-	-	-
Lemon Sole	..	..	..	..	..	..	..	..	..	..
Ling	..	..	..	..	..	..	..	..	..	..
Megrim	0.5	0.6	0.3	0.3	0.3	1.7	1.8	1.0	1.0	1.1
Monks or Anglers	0.4	0.5	0.2	0.3	0.3	1.6	1.6	0.8	1.2	1.2
Plaice	..	..	..	..	..	..	..	..	..	..
Pollack (Lythe)	..	..	..	..	..	..	..	..	..	..
Saithe	..	..	..	..	..	..	..	..	..	..
Sand Eels	-	-	-	-	-	-	-	-	-	-
Skates and Rays	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2
Sole	..	..	..	..	..	0.2	0.1	0.1	0.1	0.1
Turbot	..	..	..	..	..	0.1	0.1	..	..	..
Whiting	..	..	..	..	..	..	..	..	..	..
Witch	0.1	0.1	..	..	..	0.3	0.2	..	0.1	0.1
Other Demersal [(b)]	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1
Total Demersal	**1.9**	**1.8**	**1.0**	**1.2**	**1.2**	**5.4**	**4.9**	**3.1**	**3.6**	**3.7**
Blue Whiting	-	-	-	-	..	-	-	-	-	..
Herring	..	..	..	..	..	..	..	..	..	..
Horse Mackerel	..	-	-	-	..	..	-	-	-	..
Mackerel	..	..	..	..	..	..	..	..	..	..
Sardines	-	-	-	-	-	-	-	-	-	-
Other Pelagic	..	-	..	..	-	..	-	..	..	-
Total Pelagic	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Cockles	-	-	-	-	..	-	-	-	-	..
Crabs	1.0	0.8	0.6	0.5	0.5	1.2	1.0	0.7	0.6 [R]	0.7
Cuttlefish	..	..	..	..	..	..	..	..	..	..
Lobsters	0.2	0.2	0.2	0.2	0.2	2.2	1.6	1.8	1.9	2.0
Mussels	-	-	-	-	1.3	-	-	-	-	..
Nephrops	0.1	..	0.1	..	..	0.2	..	0.3	..	0.1
Scallops	5.9	5.5	3.6	2.4	2.4	7.6	5.0	3.6	2.4	2.7
Shrimps and Prawns	-	-	-	-	..	-	-	-	-	..
Squid	..	..	..	..	..	..	..	..	..	..
Whelks	4.6	5.1	4.5	5.1	6.5	3.1	3.7	3.6	4.6	7.0
Other Shellfish	0.1	0.1	0.1	..	..	0.5	0.5	0.5	0.3	0.5
Total Shellfish	**11.9**	**11.6**	**9.0**	**8.2**	**11.0**	**14.8**	**11.8**	**10.5**	**9.9** [R]	**12.9**
Total All Species	**13.8**	**13.4**	**10.0**	**9.4**	**12.2**	**20.2**	**16.7**	**13.6**	**13.5**	**16.7**

Source: Fisheries Administrations in the UK

(a) Landings data include transhipments.

(b) Includes fish roes and livers.

TABLE 3.2c Landings into Scotland by UK vessels: 2012 to 2016 [(a)]

	Quantity ('000 tonnes)					Value (£ million)				
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
Bass	..	..	..	..	..	..	..	..	..	..
Brill	..	..	..	..	..	..	..	..	..	..
Cod	11.1	11.9	12.9	14.0	16.5	21.8	23.5	25.9	27.2	34.3
Dogfish	..	..	0.1	0.2	0.2	..	..	..	..	..
Gurnard	0.4	0.4	0.4	0.6	0.6	0.2	0.2	0.2	0.3	0.3
Haddock	30.9	36.7	34.1	30.9	31.6	32.3	41.0	47.4	42.1	41.8
Hake	5.7	5.5	7.5	7.4	9.9	12.2	14.3	17.8	18.4	23.8
Halibut	0.1	..	..	..	0.1	0.6	0.4	0.3	0.4	0.7
Lemon Sole	0.5	0.7	0.7	0.7	0.8	1.4	1.9	2.1	2.4	3.0
Ling	3.7	3.7	4.0	3.8	4.6	5.2	5.0	4.9	5.0	6.7
Megrim	2.1	2.2	2.0	1.8	2.1	5.5	5.3	5.2	4.2	5.6
Monks or Anglers	6.6	6.5	7.6	10.3	12.5	21.0	19.3	21.9	25.1	35.8
Plaice	0.9	1.7	1.4	1.7	2.2	0.8	1.3	1.1	1.2	2.2
Pollack (Lythe)	0.5	0.4	0.4	0.5	0.4	1.0	0.8	0.7	1.0	1.0
Saithe	10.8	12.7	11.0	9.8	9.8	11.1	10.8	10.0	8.4	10.2
Sand Eels	-	-	-	-	-	-	-	-	-	-
Skates and Rays	0.5	0.5	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.6
Sole	..	..	..	..	..	..	..	..	..	..
Turbot	..	..	..	0.1	0.1	0.3	0.4	0.4	0.5	0.4
Whiting	8.9	10.1	9.3	9.1	8.8	9.5	10.2	10.5	9.8	9.7
Witch	0.6	0.6	0.7	0.5	0.7	0.7	0.6	0.6	0.6	0.8
Other Demersal [(b)]	1.1	1.8	1.7	1.7	1.7	1.8	2.7	2.6	3.7	6.0
Total Demersal	**84.4**	**95.5**	**94.4**	**93.8**	**103.1**	**125.9**	**138.2**	**152.2**	**150.7** [R]	**183.0**
Blue Whiting	6.3	8.2	9.7	12.1	11.9	1.7	1.8	1.3	2.0	2.4
Herring	32.6	29.0	31.3	32.1	33.1	16.1	10.9	8.5	11.3	21.7
Horse Mackerel	1.3	0.6	0.8	0.7	..	0.7	0.3	0.4	0.5	..
Mackerel	63.2	75.1	122.1	90.6	99.2	59.1	67.0	99.9	57.5	85.3
Sardines	-	-	-	-	-	-	-	-	-	-
Other Pelagic	1.8	1.0	1.5	1.1	2.2	0.4	0.2	0.4	0.2	0.5
Total Pelagic	**105.2**	**113.9**	**165.4**	**136.6**	**146.4**	**78.1**	**80.4**	**110.5**	**71.5**	**109.8**
Cockles	..	..	..	..	..	..	..	..	..	..
Crabs	13.2	12.8	14.3	12.8	13.9	18.3	18.0	20.5	18.1	21.7
Cuttlefish	-	..	-	..	..	-	..	-	..	..
Lobsters	1.1	1.0	1.2	1.0	1.1	11.8	10.6	12.6	11.1 [R]	13.7
Mussels	0.1	0.3	0.1	-	-	..	0.1	..	-	-
Nephrops	21.8	17.9	20.2	16.1 [R]	20.0	82.1	61.7	73.1	59.2 [R]	72.5
Scallops	18.0	17.8	13.8	14.1 [R]	16.2	23.8 [R]	26.5	23.6	24.7 [R]	33.2
Shrimps and Prawns	..	..	..	..	..	..	..	..	..	..
Squid	1.4	1.2	2.2	1.3	1.7	4.3	4.1	6.2	4.2	6.5
Whelks	0.4	0.7	0.9	1.1	1.9	0.2	0.5	0.7	0.9	1.7
Other Shellfish	1.0	1.1	0.5	0.4	0.6	3.0	3.6	1.9	1.9	2.6
Total Shellfish	**57.1**	**52.7**	**53.1**	**46.8** [R]	**55.3**	**143.5**	**125.1**	**138.6**	**120.1** [R]	**151.9**
Total All Species	**246.7**	**262.1**	**312.9**	**277.2** [R]	**304.9**	**347.5**	**343.7**	**401.3**	**342.3** [R]	**444.8**

Source: Fisheries Administrations in the UK

(a) Landings data include transhipments.

(b) Includes fish roes and livers.

TABLE 3.2d Landings into Northern Ireland by UK vessels: 2012 to 2016 [(a)]

	Quantity ('000 tonnes)					Value (£ million)				
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
Bass	..	..	..	..	..	..	..	..	..	..
Brill	..	..	..	..	..	..	..	..	..	..
Cod	0.1	0.1	0.1	0.1	..	0.2	0.2	0.1	0.1	0.1
Dogfish	0.1	0.2	0.2	0.4	0.2	..	..	..	0.1	..
Gurnard	..	..	..	..	..	..	..	..	..	..
Haddock	0.3	0.3	0.4	0.6	0.8	0.3	0.3	0.4	0.7	1.0
Hake	0.1	0.1	..	0.1	0.1	0.1	0.1	..	0.2	0.2
Halibut	..	-	..	..	..	..	-	..	..	..
Lemon Sole	..	..	..	..	..	..	..	..	..	..
Ling	..	..	..	..	..	..	..	..	..	..
Megrim	..	..	..	..	..	..	..	..	..	..
Monks or Anglers	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.2	0.5	0.6
Plaice	..	..	..	..	..	..	..	..	..	..
Pollack (Lythe)	..	..	..	..	0.1	..	..	..	0.1	0.1
Saithe	..	..	..	..	..	..	..	..	..	..
Sand Eels	-	-	-	-	-	-	-	-	-	-
Skates and Rays	0.1	0.1	..	..	..	0.1	0.1	..	..	..
Sole	..	..	..	..	..	..	..	..	..	..
Turbot	..	..	..	..	..	0.1	0.1	0.1	0.1	0.1
Whiting	..	0.1	0.1	..	..	..	0.1	0.1	..	..
Witch	0.1	0.1	..	..	..	..	..	..	..	..
Other Demersal [(b)]	..	..	..	..	..	..	..	..	..	..
Total Demersal	**0.9**	**1.2**	**1.1**	**1.7**	**1.8**	**1.3**	**1.3**	**1.2**	**1.8**	**2.2**
Blue Whiting	-	-	-	-	-	-	-	-	-	-
Herring	5.1	4.6	4.1	3.4	4.8	2.3	1.6	1.0	1.0	2.5
Horse Mackerel	..	-	..	-	-	..	-	..	-	-
Mackerel	2.1	1.9	2.3	1.6	2.3	2.3	1.6	2.5	1.1	1.6
Sardines	-	-	-	-	-	-	-	-	-	-
Other Pelagic	-	-	-	-	..	-	-	-	-	..
Total Pelagic	**7.2**	**6.5**	**6.4**	**5.0**	**7.1**	**4.6**	**3.2**	**3.5**	**2.1**	**4.1**
Cockles	-	-	-	-	-	-	-	-	-	-
Crabs	1.6	1.5	1.4	1.2	1.2	1.3	1.4	1.4	1.1	1.2
Cuttlefish	-	-	-	-	..	-	-	-	-	..
Lobsters	0.1	0.1	0.1	0.1	0.1	0.7	0.8	1.0	0.9	0.8
Mussels	0.2	..	-	0.9	0.3	0.3	..	-	0.7	0.2
Nephrops	7.4	6.8	6.9	7.5	7.3	17.3	13.5	14.8	15.6	16.5
Scallops	3.2	3.0	2.1	2.3	1.6	2.8	2.8	2.8	3.3	3.5
Shrimps and Prawns	..	..	..	..	..	..	..	..	..	..
Squid	..	..	..	..	..	0.1	0.1	..	..	..
Whelks	0.2	0.1	..	..	0.1	0.1	0.1	..	..	0.1
Other Shellfish	0.3	..	..	..	..	0.4	..	..	..	..
Total Shellfish	**13.0**	**11.7**	**10.5**	**12.1**	**10.6**	**23.0**	**18.7**	**20.1**	**21.8**	**22.4**
Total All Species	**21.0**	**19.4**	**18.0**	**18.8**	**19.5**	**28.9**	**23.3**	**24.8**	**25.8** [R]	**28.7**

Source: Fisheries Administrations in the UK

(a) Landings data include transhipments.

(b) Includes fish roes and livers.

TABLE 3.3 Landings into the UK by foreign vessels: 2012 to 2016 [(a)]

	Quantity ('000 tonnes)					Value (£ million)				
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
Bass	..	..	..	..	..	0.1	0.1	0.1 [R]	0.1	0.1
Brill	0.1	0.1	0.1	0.1	0.1	0.4	0.3	0.2 [R]	0.3	0.3
Cod	1.7	0.5	0.7	1.4	0.9	2.0	0.8	1.4 [R]	2.4	1.9
Dogfish	0.2	0.2	0.2	0.2	0.2	0.1	0.1	..	0.1	0.1
Gurnard	0.2	0.2	0.1	0.2	0.1	0.3	0.1	..	0.1	0.1
Haddock	0.4	0.5	1.8	1.1	0.7	0.4	0.6	2.4 [R]	1.4	1.0
Hake	5.5	4.5	7.1	7.1	8.5	12.7	11.1	17.7	17.5	20.7
Halibut	..	..	..	..	..	0.1	..	0.1	..	0.1
Lemon Sole	0.3	0.3	0.3	0.2	0.2	0.7	0.6	0.7 [R]	0.9	0.7
Ling	1.1	1.3	1.6	1.7	2.1	1.8	1.7	2.2 [R]	2.4	3.3
Megrim	0.7	0.7	0.3	0.4	0.5	1.3	0.9	0.7 [R]	1.0	1.2
Monks or Anglers	1.9	1.9	1.3	1.5	2.3	6.4	4.5	3.7 [R]	4.1	6.0
Plaice	0.8	0.7	0.8	0.9	0.5	0.9	0.7	0.6 [R]	0.9	0.5
Pollack (Lythe)	..	..	0.1	..	0.1	0.1	..	0.2 [R]	0.1	0.1
Saithe	5.5	6.8	6.4	8.9	7.5	6.0	6.1	6.9	8.5	8.5
Sand Eels	-	-	-	-	-	-	-	-	-	-
Skates and Rays	1.2	0.9	0.7	0.8	0.7	1.6	1.2	0.8 [R]	1.2	1.1
Sole	1.0	0.8	0.8	0.7	0.6	8.9	5.3	4.1 [R]	5.4	5.2
Turbot	0.1	0.1	0.1	0.1	0.1	0.9	0.6	0.4 [R]	0.5	0.6
Whiting	0.2	0.3	0.5	0.6	0.7	0.2	0.2	0.5 [R]	0.6	0.6
Witch	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1 [R]	0.1	0.1
Other Demersal [(b)]	6.4	7.0	7.6	5.7	6.4	9.4	10.7	11.8 [R]	7.7	9.2
Total Demersal	**27.3**	**27.0**	**30.7**	**31.7**	**32.3**	**54.3**	**45.8**	**54.6** [R]	**55.3** [R]	**61.3**
Blue Whiting	18.1	1.2	..	-	-	5.7	0.3	..	-	-
Herring	24.9	8.5	10.4	3.5	7.5	14.6	3.3	3.0	1.2	4.2
Horse Mackerel	0.8	0.4	0.6	0.4	0.8	0.6	0.3	0.5	0.2	0.5
Mackerel	21.4	21.4	29.4	9.1	10.6	16.8	19.3	21.7	5.9	8.7
Sardines	-	..	-	..	..	-	..	-	-	..
Other Pelagic	2.1	0.4	..	..	0.8	1.5	0.1	..	..	0.3
Total Pelagic	**67.2**	**31.8**	**40.5**	**12.9**	**19.6**	**39.2**	**23.3**	**25.1**	**7.3**	**13.6**
Cockles	-	-	-	-	-	-	-	-	-	-
Crabs	0.2	0.1	0.1	0.2	0.2	0.5	0.1	0.4	0.5	0.6
Cuttlefish	0.1	0.1	..	0.2	0.1	0.2	0.1	..	0.3	0.4
Lobsters	..	..	..	..	..	..	..	..	..	..
Mussels	-	..	-	-	-	-	..	-	-	-
Nephrops	0.4	0.2	0.1	0.2	0.1	0.9	0.4	0.3	0.3	0.3
Scallops	0.7	0.7	1.1	0.7	1.0	1.1	1.1	1.9 [R]	1.4	1.9
Shrimps and Prawns	-	-	-	-	-	-	-	-	-	-
Squid	0.1	0.1	..	0.1	..	0.3	0.3	0.1	0.1	0.1
Whelks	..	..	..	..	..	..	..	..	..	..
Other Shellfish	0.1	0.1	..	..	..	..	..	..	..	..
Total Shellfish	**1.5**	**1.2**	**1.5**	**1.4**	**1.5**	**3.1**	**1.9**	**2.8** [R]	**2.7**	**3.4**
Total All Species	**96.1**	**60.0**	**72.7**	**46.0**	**53.4**	**96.7**	**71.0**	**82.5** [R]	**65.3** [R]	**78.3**

Source: Fisheries Administrations in the UK

(a) Landings data include transhipments and exclude landings abroad by foreign vessels.

(b) Includes fish roes and livers.

TABLE 3.4 Landings into the UK by UK and foreign vessels: 2012 to 2016 [a]

	Quantity ('000 tonnes)					Value (£ million)				
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
Bass	0.8	0.8	1.0	0.7	0.5	5.7	5.7	7.4 R	5.4	4.9
Brill	0.4	0.3	0.3	0.4	0.4	2.0	1.9	1.8 R	1.9	2.3
Cod	14.4	13.5	14.7	16.7	21.7	26.9	26.7	29.3 R	31.9	39.9
Dogfish	0.8	0.8	0.8	1.8	1.9	0.2	0.2	0.2 R	0.5	0.5
Gurnard	2.0	2.0	1.4	1.9	1.9	1.5	1.3	0.9	1.1	1.2
Haddock	34.4	39.2	37.2	33.5	33.9	36.2	44.1	51.7 R	45.6 R	45.0
Hake	12.0	11.0	15.6	15.9	19.9	26.1	27.2	37.4	38.4	47.6
Halibut	0.1	0.1	..	0.1	0.1	0.7	0.5	0.4	0.4	0.9
Lemon Sole	2.8	2.8	2.7	2.1	2.2	7.5	8.3	8.6 R	8.2	9.0
Ling	5.1	5.3	6.1	5.8	7.0	7.4	7.2	7.6 R	7.7	10.3
Megrim	4.0	4.6	3.7	3.5	3.7	10.0	10.0	9.4 R	8.7 R	10.2
Monks or Anglers	12.2	12.0	12.7	15.8	18.7	38.3	34.8	35.1 R	38.8	52.9
Plaice	4.2	4.9	4.3	4.4	5.2	4.6	4.8	4.1 R	4.5	5.9
Pollack (Lythe)	1.8	1.6	2.0	1.7	2.0	4.0	3.5	3.6 R	3.2	4.5
Saithe	16.4	19.7	17.5	18.8	17.4	17.3	17.1	17.0	17.0	18.8
Sand Eels	..	..	..	..	..	..	..	..	..	..
Skates and Rays	3.8	3.5	3.1	3.2	3.1	5.0	4.4	3.5 R	4.0	4.1
Sole	2.7	2.6	2.6	2.1	2.1	22.8	18.1	16.5 R	15.7	18.6
Turbot	0.6	0.5	0.6	0.6	0.6	4.5	4.3	4.6 R	4.7	5.3
Whiting	11.0	12.4	11.7	11.3	11.0	11.1	11.7	12.3 R	11.6	11.4
Witch	1.0	0.9	0.8	0.7	0.9	1.2	0.9	0.8	0.8	1.1
Other Demersal [b]	9.7	10.9	11.8	9.0	10.1	14.3	16.1	17.5 R	13.9	18.2
Total Demersal	**140.2**	**149.5** R	**150.7**	**150.1** R	**164.4**	**247.4**	**248.8**	**269.8** R	**264.1** R	**312.4**
Blue Whiting	24.5	9.4	9.7	12.1	11.9	7.5	2.1	1.3	2.0	2.4
Herring	63.1	46.0	48.8	42.0	47.9	33.2	16.9	13.5	14.6	29.5
Horse Mackerel	9.6	2.9	3.7	3.2	1.7	3.4	1.1	1.6	1.5	0.8
Mackerel	89.2	99.6	155.6	103.9	114.5	80.6	89.4	125.7	66.5	97.5
Sardines	4.3	3.7	3.4	4.2	8.0	1.1	1.0	0.8	1.6	2.6
Other Pelagic	8.8	5.2	5.7	3.8	6.1	2.9	1.1	2.1	0.8	1.6
Total Pelagic	**199.5**	**166.7**	**226.9**	**169.3**	**190.0**	**128.7**	**111.6**	**145.1**	**86.9**	**134.3**
Cockles	2.2	10.1	10.2	11.2	5.0	1.5	5.3	7.9	5.7	3.5
Crabs	29.9	29.3	32.8	29.4 R	32.5	39.1	39.1	44.8 R	39.8 R	47.6
Cuttlefish	5.4	3.7	3.1	6.2	5.2	10.9	6.6	6.5	10.9	14.4
Lobsters	3.1	3.0	3.4	3.1	3.3	31.0	29.9	33.5	32.2 R	39.5
Mussels	0.7	0.5	0.2	1.0	1.6	0.4	0.2	0.1	0.8	0.2
Nephrops	33.0	28.5	30.5	25.9	30.9	111.3	86.3	98.8	82.3 R	100.8
Scallops	54.3	49.4	39.7	41.5 R	39.4	68.4	63.7	60.3 R	65.7 R	76.0
Shrimps and Prawns	1.0	0.9	0.6	0.3	0.8	2.4	2.4	1.4	0.8	3.0
Squid	1.9	1.9	2.9	1.9	2.0	6.7	7.3	9.3	6.6	8.3
Whelks	16.5	20.1	19.8	20.9	22.7	11.2	13.8	16.2 R	18.6	22.9
Other Shellfish	2.4	1.9	1.1	1.3	1.2	5.9	5.4	3.7	4.0	4.7
Total Shellfish	**150.3**	**149.2**	**144.3**	**142.6** R	**144.6**	**288.7**	**259.9**	**282.4** R	**267.3** R	**321.0**
Total All Species	**490.1**	**465.4**	**521.8**	**462.0** R	**499.0**	**664.9** R	**620.3**	**697.3** R	**618.3** R	**767.7**

Source: Fisheries Administrations in the UK

(a) Landings data include transhipments and exclude landings abroad.

(b) Includes fish roes and livers.

TABLE 3.5 Landings abroad by UK vessels: 2012 to 2016 [(a)]

	Quantity ('000 tonnes)					Value (£ million)				
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
Bass	0.1	..	..	..	..	0.6	0.2	0.3	0.3	0.2
Brill	0.1	0.1	0.1	0.1	0.1	0.6	0.6	0.7	0.5	0.7
Cod	13.8	16.4	16.3	12.9 R	13.4	18.8	20.0	22.1	19.6 R	15.2
Dogfish	..	..	..	..	0.1	..	..	..	..	..
Gurnard	0.5	0.4	0.5	0.5	0.7	0.5	0.5	0.5	0.6	0.8
Haddock	1.2	1.1	0.9	0.9	0.9	1.4	1.1	1.1	1.0 R	0.8
Hake	1.8	2.5	2.8	3.8	2.9	4.2	6.7	6.3	8.4	6.9
Halibut	..	..	..	..	..	..	..	..	..	..
Lemon Sole	0.4	0.5	0.5	0.4	0.5	1.1	1.3	1.5	1.5	1.5
Ling	0.6	0.6	0.4	0.5	0.5	1.0	0.8	0.5	0.6	0.7
Megrim	1.3	1.3	1.6	1.7	1.7	4.0	3.8	5.8	5.5	5.8
Monks or Anglers	3.2	3.5	4.5	3.9	4.1	12.2	10.8	14.4	11.9	13.2
Plaice	15.3	17.1	15.6	15.3	16.5	20.9	18.1	17.1	19.0	22.9
Pollack (Lythe)	0.5	0.6	0.6	0.5	0.4	1.2	1.4	0.6	0.6	1.0
Saithe	2.1	1.8	1.6	3.1	2.4	2.2	1.9	2.0	3.2	2.4
Sand Eels	-	2.4	..	2.0	-	-	0.5	..	0.4	-
Skates and Rays	0.3	0.3	0.4	0.4	0.4	0.4	0.7	0.6	0.7	0.7
Sole	0.3	0.5	0.6	0.6	0.5	2.6	3.8	4.4	4.7	4.7
Turbot	0.3	0.3	0.3	0.2	0.3	2.3	2.3	2.6	1.9	2.4
Whiting	0.3	0.7	0.7	0.7	0.4	0.5	0.6	0.6	0.6	0.4
Witch	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.5	0.6	0.7
Other Demersal [(b)]	7.1	6.4	2.2	2.7 R	2.2	4.1	3.0	2.6	3.3 R	4.3
Total Demersal	**49.5**	**56.8**	**49.7**	**50.7** R	**48.3**	**78.9**	**78.2**	**84.3**	**84.9** R	**85.4**
Blue Whiting	2.8	5.3	18.1	19.6	26.4	1.5	1.2	3.9	4.6	6.3
Herring	52.2	56.3	59.3	55.2	51.8	20.8	19.7	18.2	19.6	31.1
Horse Mackerel	7.9	8.9	9.7	4.7	5.6	3.5	3.9	4.4	2.3	2.4
Mackerel	101.0	85.6	161.8	153.2	113.5	94.5	76.2	123.1	99.2	99.5
Sardines	4.3	0.3	0.5	0.1	1.4	1.4	0.1	0.2	..	0.5
Other Pelagic	1.6	0.8	0.8	0.6	0.4	3.1	1.9	1.7	1.3	0.6
Total Pelagic	**169.8**	**157.2**	**250.2**	**233.4**	**199.0**	**124.9**	**103.0**	**151.5**	**127.0**	**140.3**
Cockles	..	..	..	-	..	..	..	..	-	0.1
Crabs	2.7	3.1	3.5	3.4	4.0	3.4	4.5	5.5	4.8	5.8
Cuttlefish	0.1	..	..	..	..	0.3	0.1	0.1	0.1	0.1
Lobsters	..	..	..	..	..	0.3	0.3	0.3	0.3	0.2
Mussels	-	-	-	-	-	-	-	-	-	-
Nephrops	0.2	0.2	0.2	0.2	0.8	1.0	1.1	1.0	1.1 R	3.2
Scallops	4.4	1.3	0.7	0.3	0.4	1.9	1.0	0.9	0.3	0.6
Shrimps and Prawns	1.3	..	..	-	-	-	..	..	-	-
Squid	5.8	2.2	4.0	4.4	2.7	8.9	3.4	5.3	4.5	10.5
Whelks	0.1	0.1	0.3	0.1	0.1	..	0.1	0.2	0.1	0.1
Other Shellfish	0.2	0.2	0.1	0.1	0.1	0.3	0.3	0.3	0.2	0.3
Total Shellfish	**14.8**	**7.3**	**8.8**	**8.5**	**8.2**	**15.9**	**10.7**	**13.5**	**11.4** R	**21.0**
Total All Species	**234.0**	**221.3**	**308.8**	**292.6** R	**255.4**	**219.7**	**192.0**	**249.3**	**223.3** R	**246.8**

Source: Fisheries Administrations in the UK

(a) Landings data include transhipments and exclude landings abroad by foreign vessels.

(b) Includes fish roes and livers.

TABLE 3.6 Landings into the UK and abroad by UK vessels: 2012 to 2016 [a]

	Quantity ('000 tonnes)					Value (£ millions)				
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
Bass	0.9	0.8	1.0	0.7	0.6	6.2	5.8	7.6	5.7	5.0
Brill	0.4	0.4	0.4	0.4	0.5	2.1	2.2	2.3	2.2	2.7
Cod	26.5	29.5	30.2	28.3 R	34.1	43.7	45.8	49.9	49.1 R	53.2
Dogfish	0.6	0.7	0.7	1.6	1.8	0.2	0.2	0.1	0.4	0.4
Gurnard	2.3	2.2	1.8	2.2	2.5	1.7	1.6	1.4	1.6	2.0
Haddock	35.2	39.7	36.3	33.3	34.0	37.1	44.6	50.5	45.1	44.7
Hake	8.3	9.0	11.3	12.7 R	14.3	17.7	22.8	26.0	29.4 R	33.9
Halibut	0.1	0.1	..	0.1	0.1	0.7	0.5	0.4	0.4	0.9
Lemon Sole	2.9	3.0	2.8	2.3	2.5	7.9	9.0	9.4	8.8	9.8
Ling	4.7	4.6	4.9	4.6	5.4	6.6	6.3	5.9	5.9	7.8
Megrim	4.6	5.3	5.0	4.8	4.9	12.8	12.9	14.5	13.1	14.8
Monks or Anglers	13.5	13.6	15.8	18.2	20.4	44.1	41.1	45.9	46.7 R	60.0
Plaice	18.8	21.2	19.1	18.9	21.2	24.6	22.1	20.6	22.5	28.3
Pollack (Lythe)	2.2	2.3	2.5	2.1	2.3	5.1	4.9	4.0	3.7	5.3
Saithe	13.1	14.7	12.8	13.0	12.4	13.5	12.9	12.2	11.8 R	12.7
Sand Eels	..	2.5	..	2.0	..	..	0.5	..	0.4	..
Skates and Rays	2.9	3.0	2.8	2.8	2.8	3.9	3.9	3.3	3.6	3.7
Sole	2.0	2.3	2.3	2.0	2.0	16.5	16.6	16.8	15.1	18.0
Turbot	0.8	0.7	0.8	0.8	0.9	6.0	6.0	6.8	6.1	7.1
Whiting	11.1	12.7	11.8	11.4	10.7	11.3	12.1	12.5	11.6	11.2
Witch	1.1	1.0	1.0	0.9	1.1	1.5	1.1	1.2	1.3	1.6
Other Demersal [b]	10.5	10.3	6.4	6.0	5.8	9.0	8.5	8.3	9.4	13.3
Total Demersal	**162.4**	**179.4**	**169.8**	**169.1** R	**180.4**	**272.0**	**281.2**	**299.5**	**293.7** R	**336.6**
Blue Whiting	9.2	13.5	27.8	31.8	38.3	3.3	3.0	5.1	6.6	8.7
Herring	90.4	93.8	97.7	93.7	92.2	39.4	33.3	28.8	32.9	56.3
Horse Mackerel	16.7	11.4	12.7	7.6	6.4	6.3	4.8	5.5	3.6	2.7
Mackerel	168.8	163.8	288.0	248.0	217.3	158.3	146.3	227.2	159.8	188.3
Sardines	8.6	4.0	3.9	4.3	9.4	2.5	1.1	1.0	1.6	3.1
Other Pelagic	8.3	5.6	6.5	4.4	5.7	4.6	2.9	3.9	2.0	1.8
Total Pelagic	**302.1**	**292.1**	**436.6**	**389.8**	**369.4**	**214.4**	**191.4**	**271.5**	**206.6**	**261.0**
Cockles	2.3	10.1	10.2	11.2	5.0	1.5	5.3	7.9	5.7	3.6
Crabs	32.4	32.3	36.1	32.5 R	36.3	42.0	43.5	49.8	44.0	52.7
Cuttlefish	5.4	3.7	3.1	6.1	5.1	10.9	6.6	6.6	10.7	14.2
Lobsters	3.2	3.0	3.4	3.1	3.3	31.2	30.2	33.8 R	32.5 R	39.7
Mussels	0.7	0.5	0.2	1.0	1.6	0.4	0.2	0.1	0.8	0.2
Nephrops	32.8	28.5	30.5	25.9	31.5	111.4	87.1	99.5	83.0 R	103.7
Scallops	58.1	50.1	39.2	41.0 R	38.9	69.2	63.6	59.3 R	64.6 R	74.8
Shrimps and Prawns	2.2	0.9	0.6	0.3	0.8	2.4	2.4	1.4	0.8	3.0
Squid	7.6	4.0	6.9	6.2	4.7	15.2	10.4	14.5	10.9	18.8
Whelks	16.5	20.2	20.1	20.9	22.8	11.2	13.8	16.4 R	18.7 R	23.0
Other Shellfish	2.6	2.1	1.2	1.4	1.3	6.1	5.7	4.0	4.3 R	5.0
Total Shellfish	**163.6**	**155.3**	**151.6** R	**149.7** R	**151.3**	**301.6**	**268.7**	**293.1**	**276.0** R	**338.6**
Total All Species	**628.0**	**626.8**	**757.9**	**708.6** R	**701.1**	**787.9**	**741.3**	**864.1**	**776.3** R	**936.2**

Source: Fisheries Administrations in the UK

(a) Landings data include transhipments and exclude landings abroad by foreign vessels.

(b) Includes fish roes and livers.

Information on all landings into the UK, by UK and foreign vessels, going back as far as 1938 is shown in Table 3.7. In 2016, landings of demersal fish were just over a fifth of the quantity landed in 1970. The decline in landings of demersal fish has a number of causes, including reductions in fleet size, declining fish stocks and restricted fishing opportunities. EU and UK regulations have limited demersal fishing activity in recent decades, through decommissioning of fishing vessels, reductions in quotas and fishing effort limits and other provisions of stock management plans.

Landings of pelagic species have fluctuated over the same period but in 2016 were 7 per cent lower than in 1970. Many pelagic species are under stock management plans with quotas set by the European Commission, but pelagic landings have not seen the same reduction as demersal species.

However, since 1970, reported landings of shellfish into the UK have increased by a factor of 2.6. When compared with 1960, the factor rises to over 5. The increase in shellfish landings into the UK may partly be explained by diversion of fishing activity into this sector, in which there are often fewer restrictions. For shellfish, quotas currently only apply to nephrops. Another factor in the perceived increase is improved reporting. A large proportion of shellfish landings are made by vessels 10 metres or under in length, for which there is no statutory obligation to complete a fishing logbook or landing declaration. Successive improvements in data collection for this sector in recent years, including the introduction of mandatory reporting of first sales of fish, may account for some of the increase in reported landings.

TABLE 3.7 Landings into the UK by UK and foreign vessels: 1938 to 2016 [(a)]

	1938	1948	1960	1970	1980	1990	2000	2010	2016
Demersal									
Quantity ('000 tonnes)	807.8	923.5	758.8	778.6	484.2	336.7	246.4	149.0	164.4
Value (£ million)	14.6	46.4	52.0	67.5	194.4	327.7	304.3	262.1	312.4
Pelagic									
Quantity ('000 tonnes)	295.0	287.6	127.8	204.0	319.2	267.8	152.1	229.5	190.0
Value (£ million)	2.0	6.0	3.0	5.8	30.1	32.1	23.7	139.3	134.3
Shellfish									
Quantity ('000 tonnes)	32.1	28.7	28.1	56.4	70.2	97.5	127.7	141.0	144.6
Value (£ million)	0.5	1.4	2.1	6.7	34.5	105.1	154.5	250.9	321.0
Total									
Quantity ('000 tonnes)	**1,134.9**	**1,239.8**	**914.7**	**1,039.1**	**873.6**	**702.0**	**526.3**	**519.5**	**499.0**
Value (£ million)	**17.2**	**53.8**	**57.0**	**80.0**	**259.0**	**464.8**	**482.5**	**652.3**	**767.7**

Source: Fisheries Administrations in the UK

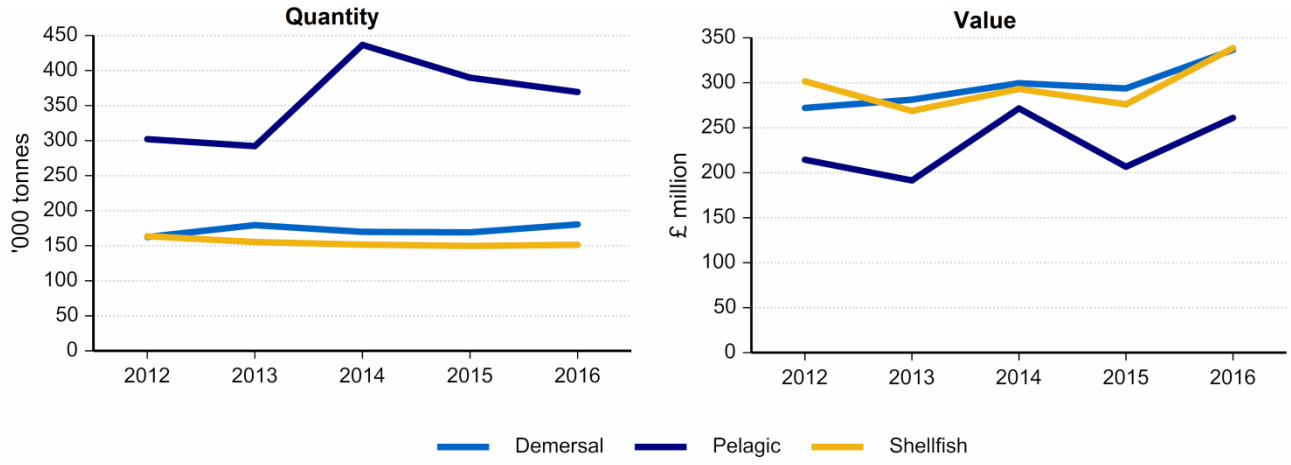
(a) Landing data include transhipments. Blue whiting treated as demersal prior to 1994 and as pelagic from 1994 onwards.

Demersal, pelagic and shellfish landings

In 2016, the UK fleet landed 180 thousand tonnes of demersal species, 11 thousand tonnes (7 per cent) more than in 2015. Over the same period, the value of demersal landings rose by 15 per cent to £337 million. Pelagic landings, 369 thousand tonnes, were 15 per cent lower than the 2014 high point but increasing prices for mackerel and herring meant the fall in value over the two years was only 4 per cent.

Shellfish landings rose slightly to 151 thousand tonnes but their overall value increased by 23 per cent to £339 million, the highest of any species group.

Chart 3.3: Landings into the UK and abroad by UK vessels: 2012 to 2016

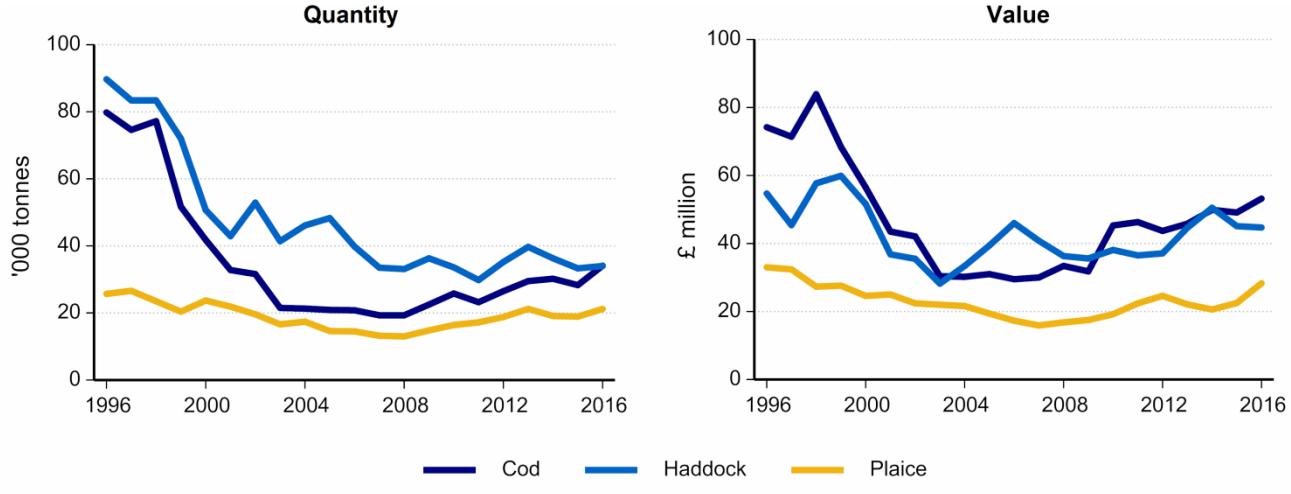


Demersal fish

Cod, haddock and plaice are the three main demersal species landed by the UK fleet in terms of weight, accounting for half the quantity of all demersal species landed in 2016 (see Table 3.6).

Cod landings have fallen considerably since 1996 although the 34 thousand tonnes landed in 2016 is the highest since 2000 and the highest of any demersal species. This is a result of increases in some of the quotas for cod stocks. In 2016, cod was sold for a total value of £53 million, the second largest amount received for any demersal species behind the £60 million received for monkfish. Monkfish landings are up by more than 50 per cent in the four years since 2012.

Chart 3.4: Landings of key demersal species into the UK and abroad by UK vessels: 1996 to 2016

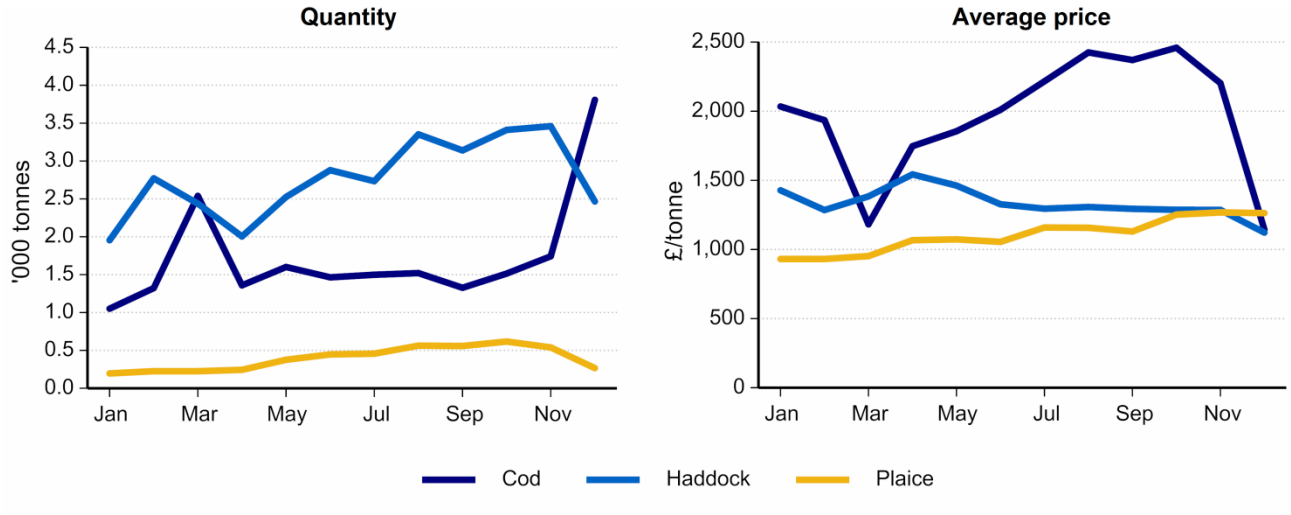


Haddock landings also rose to 34 thousand tonnes, with a value of £45 million. Unlike plaice and cod, very little haddock – just 3 per cent - was landed abroad by the UK fleet.

Plaice landings by the UK fleet rose to 21 thousand tonnes. Around four fifths of plaice, much of which was caught in other EU member states' waters, was landed abroad.

Bass commands the highest price of demersal species landed by the UK fleet – around £9 per kilo – possibly down to reduced supply following restrictions placed on vessels since 2015.

Chart 3.5: Landings of key demersal species into the UK by UK vessels by month: 2016



Landings of cod by UK vessels into the UK fluctuated between around 1,100 and 3,800 tonnes per month during 2016 (Chart 3.5). The majority of these landings are captured in the North Sea (area IV). Average prices for cod landed into the UK by the UK fleet peaked in October at £2.46 per kilo. The lowest prices (£1.14 per kilo) were achieved in December when supply was at its highest.

Haddock landings by UK vessels into the UK ranged from a peak of 3,500 tonnes in November to a low of 2,000 tonnes in January. The best average price of £1.54 per kilo was achieved in April.

Landings of plaice by UK vessels into the UK peaked in October. Highest average prices were seen the following month - £1.27 per kilo.

Chart 3.6 shows that the largest amounts of demersal fish landed abroad by the UK fleet were into the Netherlands and Norway (18 and 12 thousand tonnes respectively). France tops the list of foreign vessels landing into the UK, with 18 thousand tonnes of demersal fish.

Chart 3.6: Landings of demersal species abroad by UK vessels and landings into the UK by foreign vessels: 2016

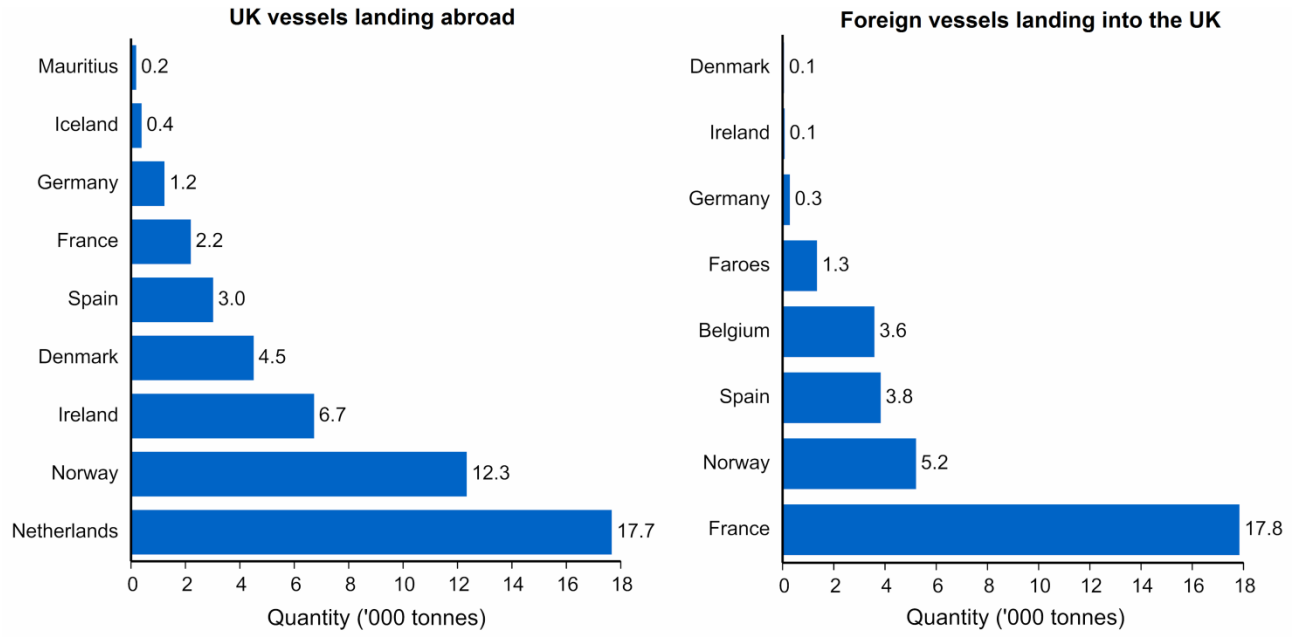


Chart 3.7 shows landings of demersal species by the UK fleet in 2016 by ICES rectangle of capture. Large quantities of demersal species were captured to the north-east of Scotland, in the central North Sea and in the English Channel. These fishing grounds also yielded the highest total value of demersal species per rectangle. However, demersal species with the highest average prices were captured from waters to the south and west of the UK and Ireland, as well as in the southern North Sea.

Chart 3.7: Demersal landings by UK vessels by ICES rectangle: 2016

Chart 3.7a: Quantity of landings by ICES rectangle

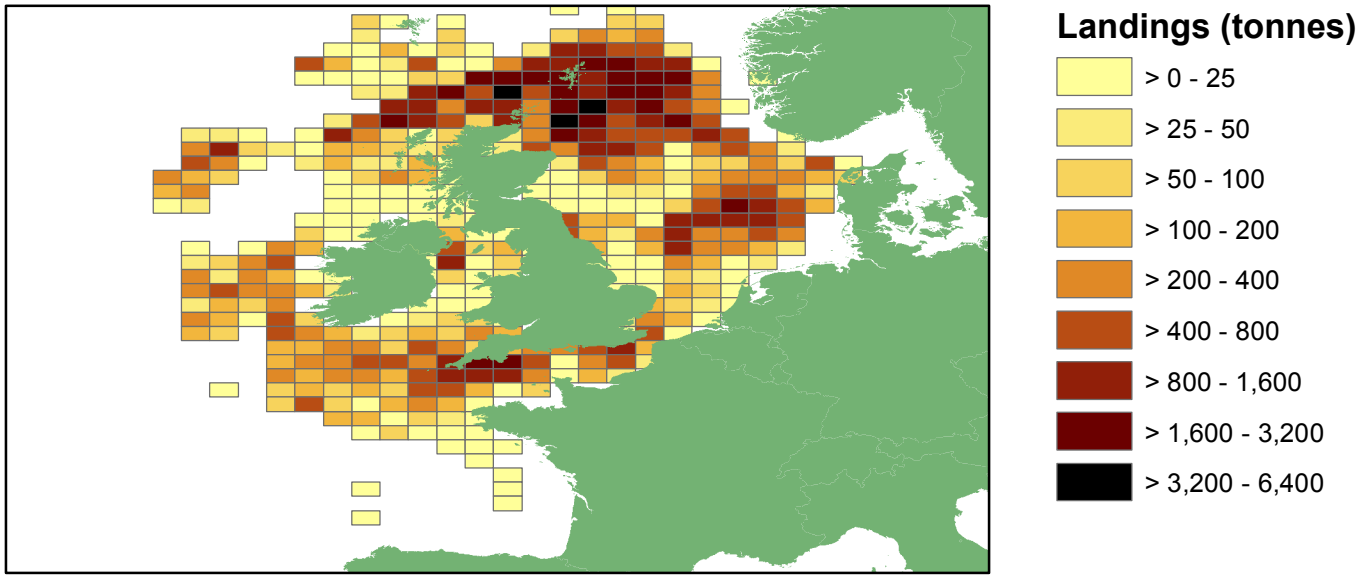


Chart 3.7b: Value of landings by ICES rectangle

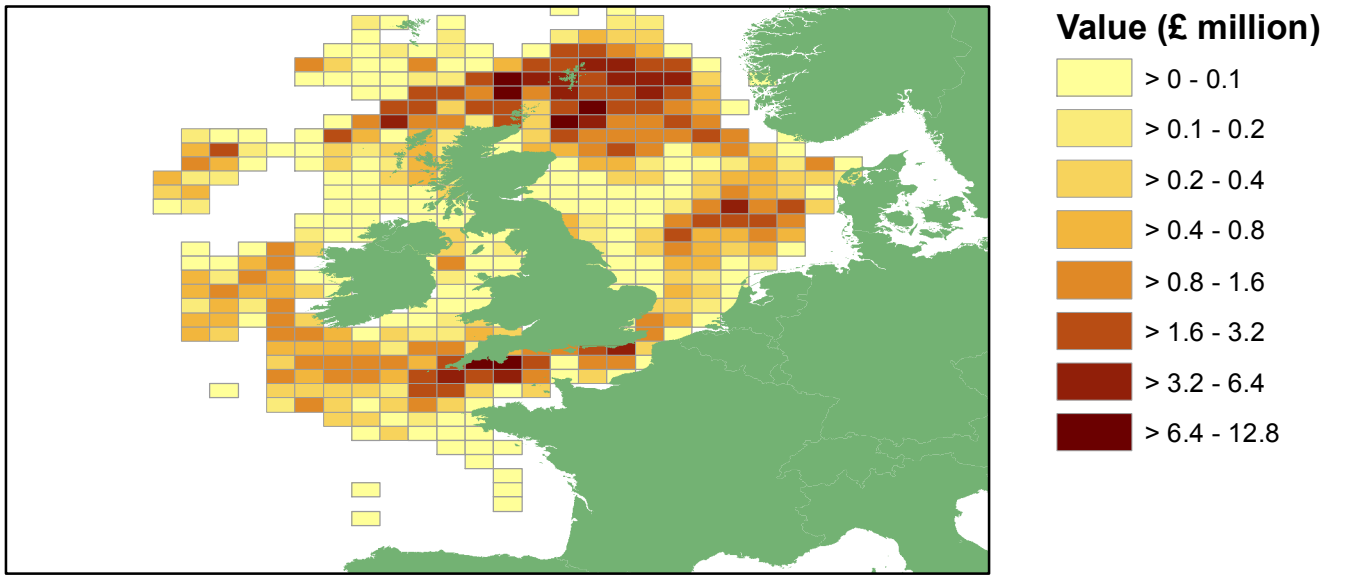
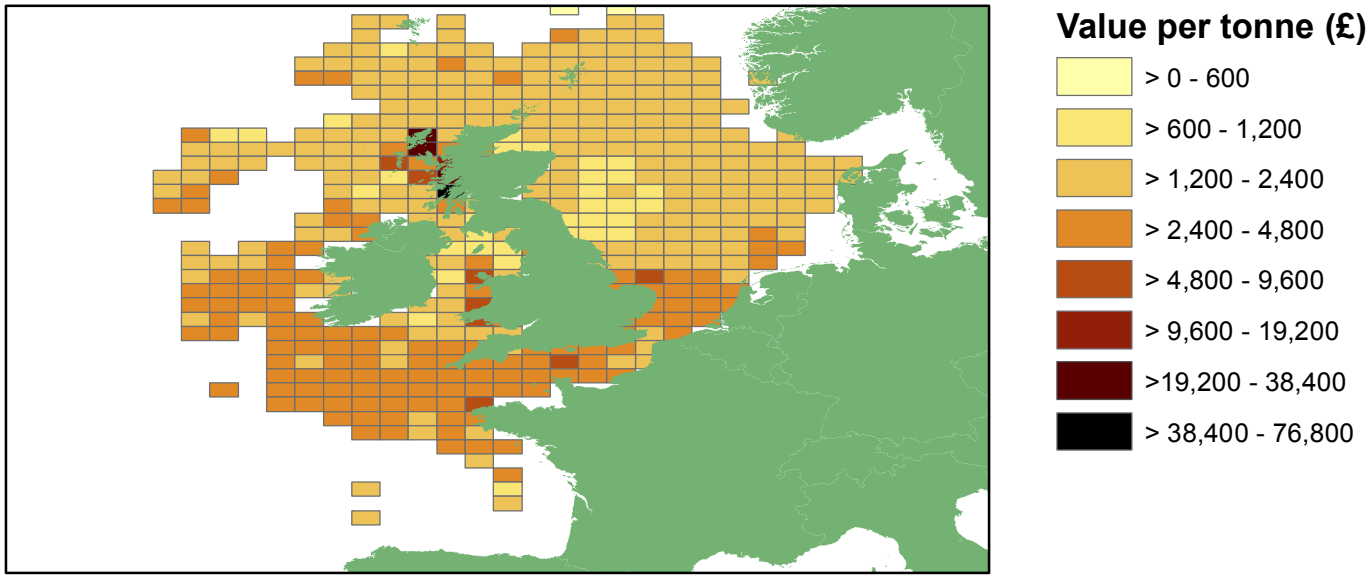


Chart 3.7c: Value of landings per tonne by ICES rectangle



*Note: Legend has been adapted to account for high values and so is not directly comparable with value per tonne charts from previous years.

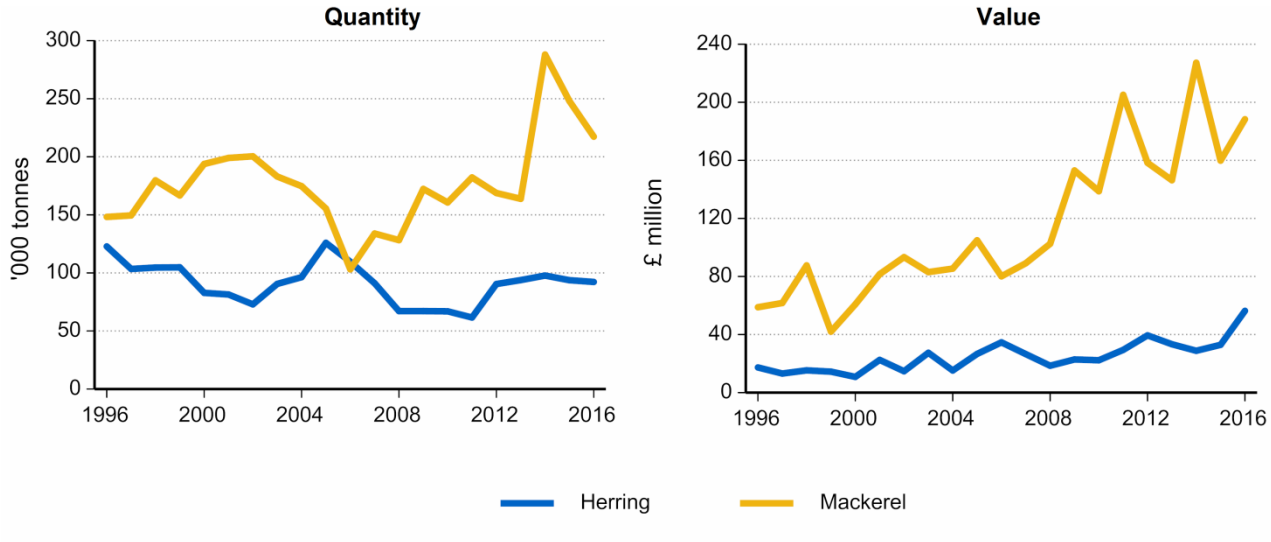
Pelagic fish

Mackerel and herring are the two main pelagic species landed by the UK fleet. These species accounted for 84 per cent by weight and 94 per cent by value of total pelagic landings in 2016. Their share of all UK fleet landings was 44 per cent in 2016, down from 48 per cent in 2015.

The UK fleet catches more mackerel than any other species. In 2014, landings of mackerel by UK vessels rose by 76 per cent to 288 thousand tonnes but with reduced quotas fell to 217 thousand tonnes in 2016. Half of this was landed abroad. Mackerel prices increased from £0.64 per kilo in 2015 to £0.87 per kilo in 2016.

The amount of herring landed by UK vessels has been fairly constant in recent years and stood at 92 thousand tonnes in 2016. The year saw a large increase in average value, up from £0.35 per kilo in 2015 to £0.61 per kilo.

Chart 3.8: Landings of key pelagic species into the UK and abroad by UK vessels: 1996 to 2016

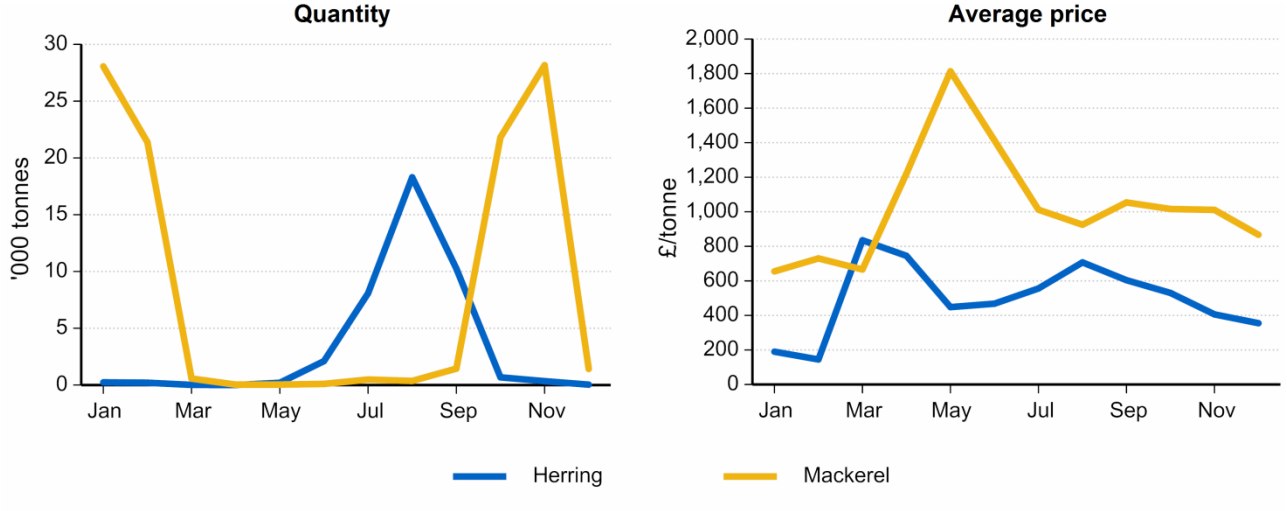


Longer-term trends in mackerel and herring landings by the UK fleet show much fluctuation (see Chart 3.8).

UK fleet landings of sardines fell from 24 thousand tonnes in 2010 (sea Sea Fisheries Statistics 2014) to 4 thousand tonnes in 2015. But landings have more than doubled in 2016 to 9 thousand tonnes. Landings of blue whiting have increased by a factor of four over the last four years. This species is generally used for fish meal but it is also exported to provide a relatively low priced source of food. Blue whiting provides the pelagic industry with a useful source of income between the mackerel and herring fisheries.

Mackerel has a winter fishery so large landings were seen in January and February and then later in the year in October and November. Quotas had more or less been exhausted by then and so catches were low in December. Ninety six per cent of all mackerel landings into the UK by the UK fleet in 2016 were in those four peak months. The sources of these two peaks are different: the January and February peak is derived almost entirely from landings captured off the West of Scotland (area VIa), while the mackerel landings later in the year come from a fishery in the Northern North Sea (area IVa). This fishery tends to attract higher prices. Average prices in the autumn peak period were around £1.00 per kilo compared with £0.70 per kilo in the winter peak period.

Chart 3.9: Landings of key pelagic species into the UK by UK vessels by month: 2016



A four month period (June to September) also accounts for 96 per cent of herring landed into the UK by the UK fleet. Landings over the summer came primarily from the Northern North Sea (area IVa) and were supplemented in August and September by fisheries in the West of Scotland and the Irish Sea (areas VIa and VIIa). During the 2016 herring season, the monthly average price was £0.64 per kilo compared with £0.35 per kilo over the same period in 2015.

The largest quantities of pelagic species landed by the UK fleet abroad were into Norway and the Netherlands at 110 and 48 thousand tonnes respectively (Chart 3.10). Danish vessels landed 12 thousand tonnes into the UK in 2016, up from 4 thousand tonnes in 2015.

Chart 3.10: Landings of pelagic species abroad by UK vessels and landings into the UK by foreign vessels: 2016

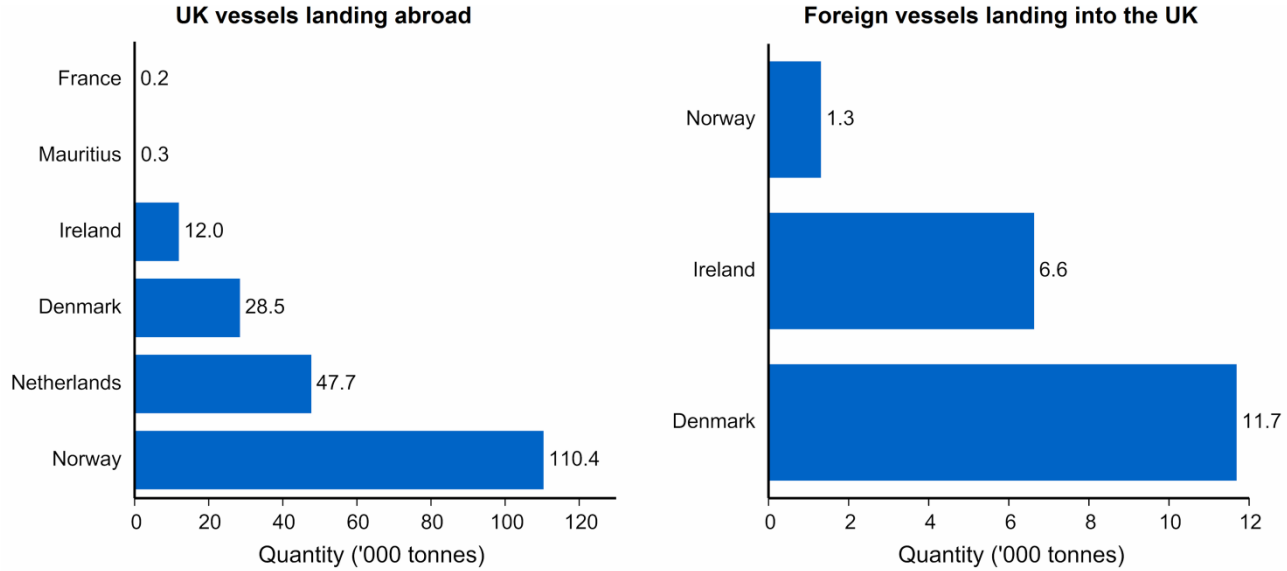


Chart 3.11 shows that large quantities and values of pelagic species were captured from rectangles near Shetland and from the north coast of Scotland down to the north-west coast of Ireland.

Chart 3.11: Pelagic landings by UK vessels by ICES rectangle: 2016

Chart 3.11a: Quantity of landings by ICES rectangle

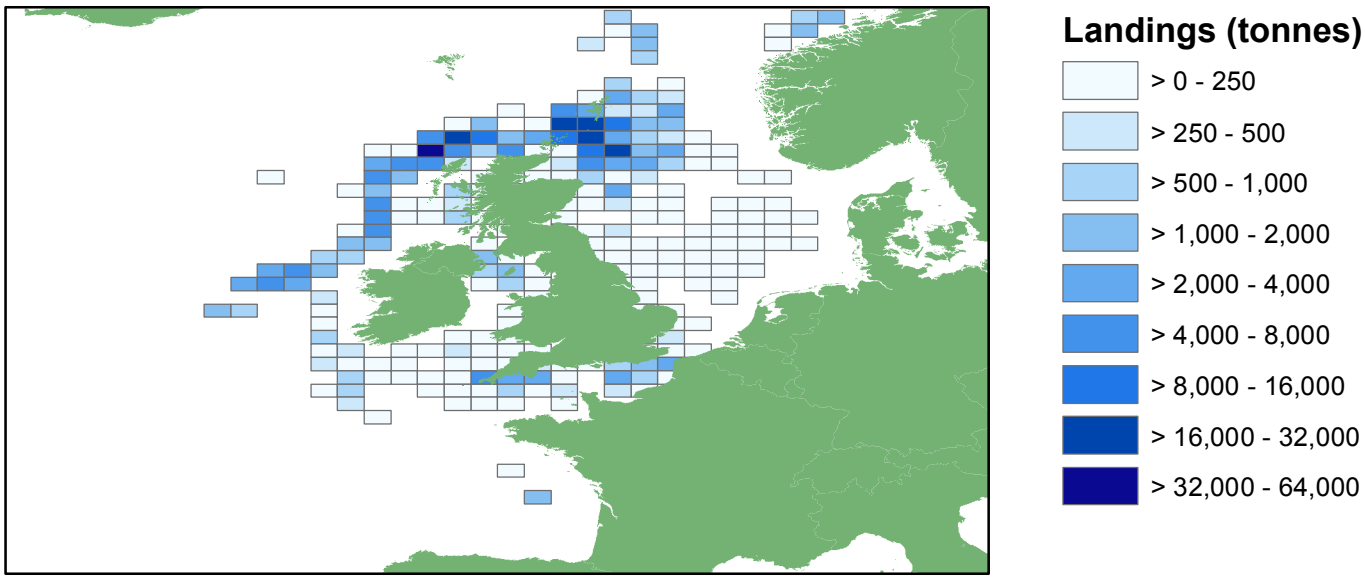


Chart 3.11b: Value of landings by ICES rectangle

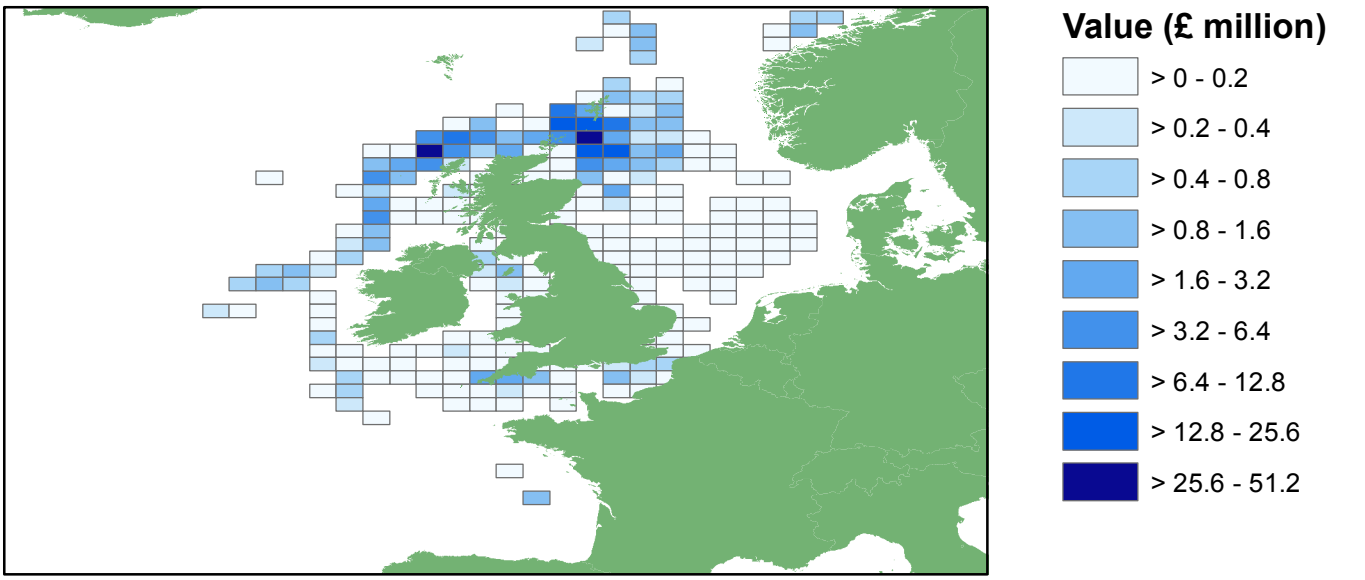
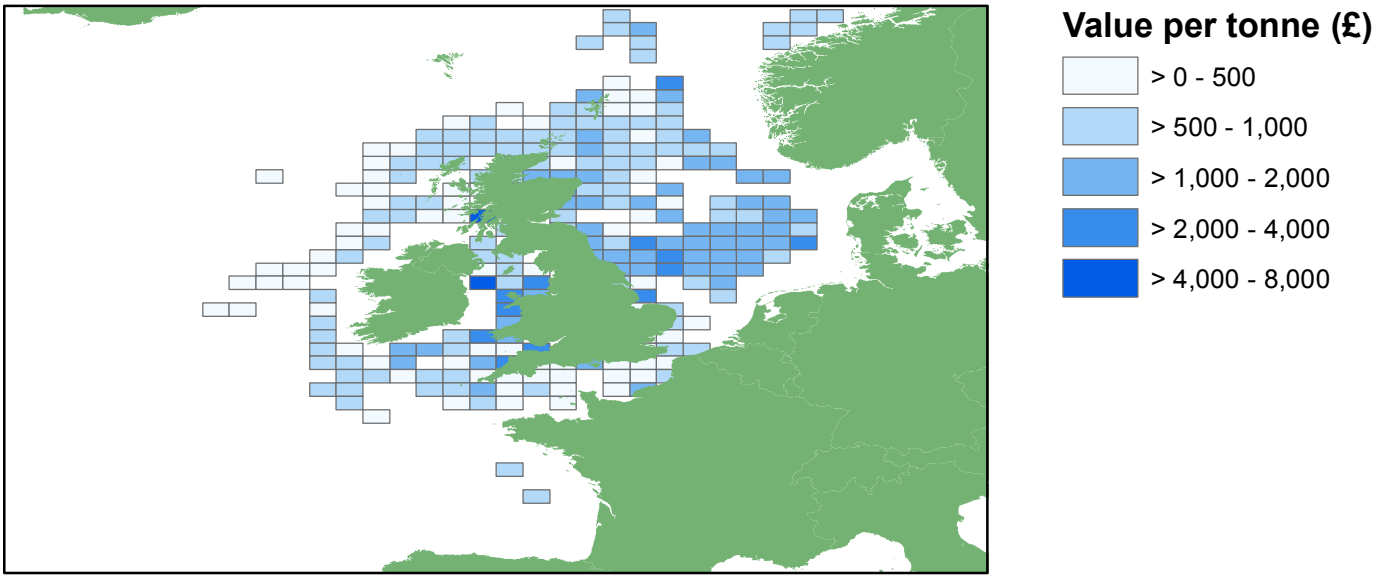


Chart 3.11c: Value of landings per tonne by ICES rectangle



Shellfish

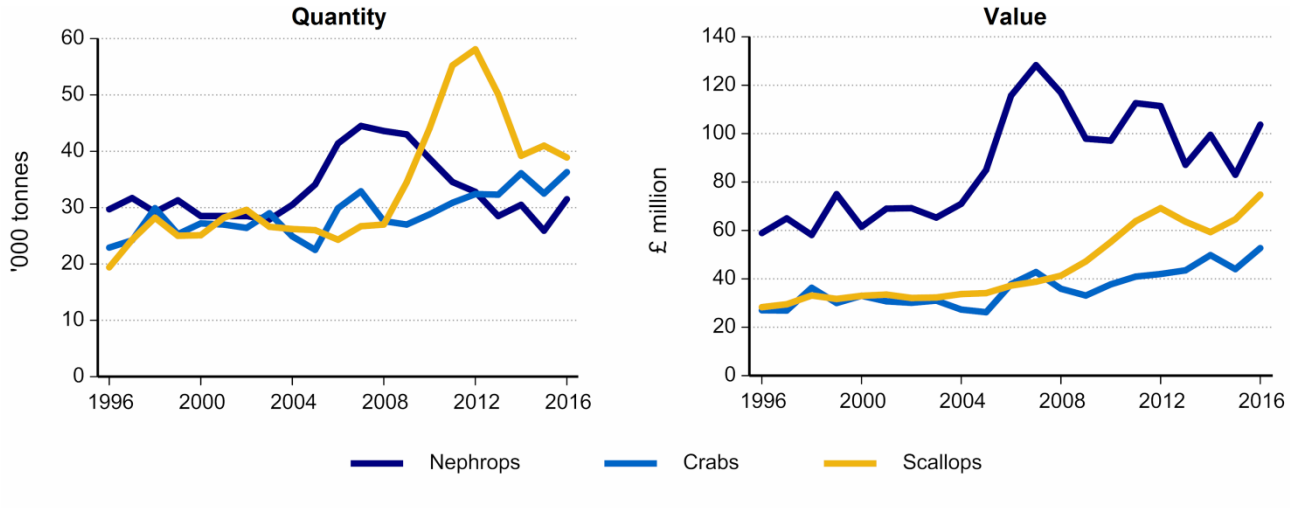
Scallops, crabs and nephrops (langoustines) are the three main species of shellfish landed by UK vessels into the UK and abroad, accounting for over two thirds of the quantity and value landed in 2016.

Scallop landings more than doubled between 2008 and 2012, rising to a peak of 58 thousand tonnes. But landings have broadly fallen in recent years to 39 thousand tonnes as some vessels have diversified into other fisheries. Very little was landed abroad.

Nephrops landings stood at 31 thousand tonnes and £104 million. Almost all of this was landed into the UK. Nephrops are not as abundant as they have been and landings by the UK fleet have fallen back in recent years to around the lowest levels seen for 20 years or so.

In 2016, landings of crabs by the UK fleet totalled 36 thousand tonnes with a value of £53 million. Around ten per cent of these landings were outside the UK. Overall, landings of crabs by the UK fleet have increased since 1996 although this could be down to better recording of shellfish catches.

Chart 3.12: Landings of key shellfish species into the UK and abroad by UK vessels: 1996 to 2016



For other shellfish species:

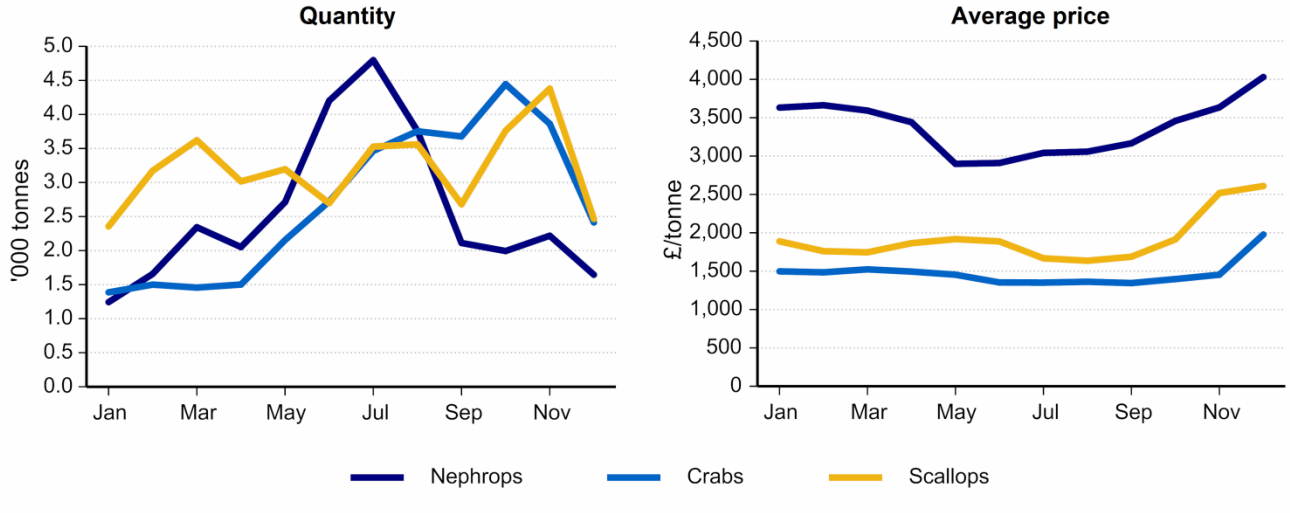
- Lobsters commanded the highest average price of all species landed by the UK fleet at over £12 a kilo in 2016. While lobsters accounted for only 2 per cent of the weight of shellfish landings by the UK fleet, they formed 12 per cent of the value.
- Landings of cockles rose from 2,300 tonnes in 2012 to 11,200 tonnes in 2015 but have since fallen back to 5,000 tonnes in 2016. However average prices rose from £0.51 per kilo in 2015 to £0.71 per kilo in 2016.

Landings of scallops into the UK by the UK fleet ranged from 2,400 tonnes in January to 4,400 tonnes in November. Typical prices were approaching £2.00 per kilo.

The largest landings of nephrops occurred during summer months with average prices over the period of around £3.00 per kilo.

Crab landings went from a low of 1,400 tonnes in January and rose steadily to a peak of 4,400 tonnes in October.

Chart 3.13: Landings of key shellfish species into the UK by UK vessels by month: 2016



Only 8 thousand tonnes of shellfish were landed abroad by the UK fleet, with an even smaller amount - 1,500 tonnes - landed by foreign vessels into the UK in 2016. Chart 3.14 shows the largest amounts of shellfish landed abroad by the UK fleet were into Ireland (3,000 tonnes). They, in return, landed the largest amount of any country into the UK (700 tonnes, of mostly scallops).

Chart 3.14: Landings of shellfish species abroad by UK vessels and landings into the UK by foreign vessels: 2016

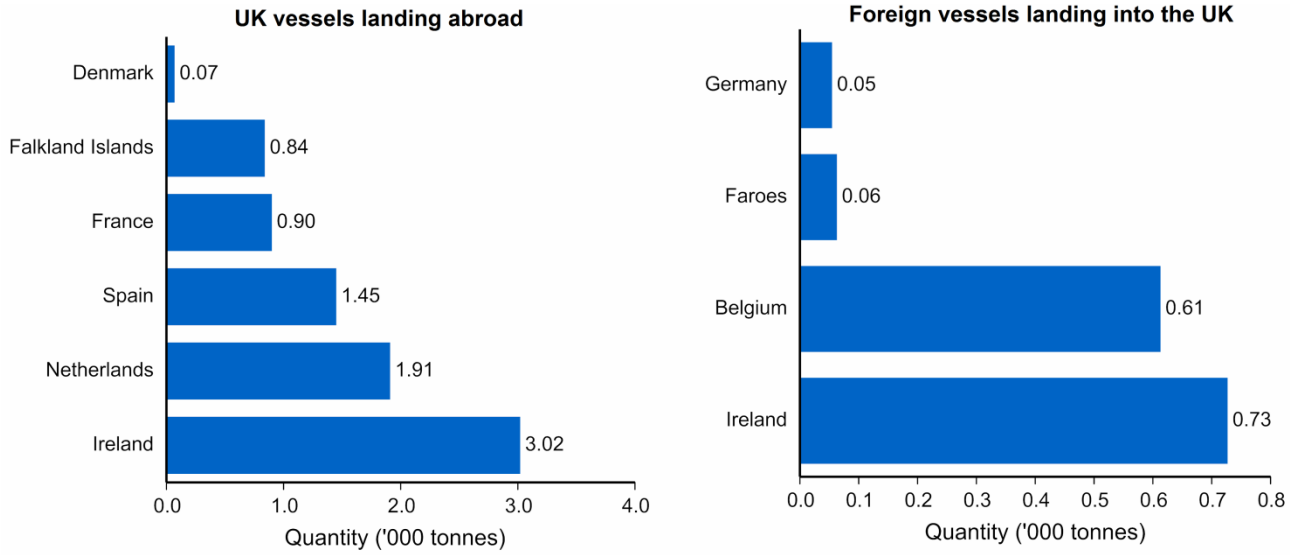


Chart 3.15 shows landings of shellfish by the UK fleet in 2016 by ICES rectangle of capture. In 2016, both the largest quantity and value of shellfish were captured in rectangles relatively close to the coast of the UK. However, shellfish species with high prices were typically captured in rectangles away from coastal areas.

Chart 3.15: Shellfish landings by UK vessels by ICES rectangle: 2016

Chart 3.15a: Quantity of landings by ICES rectangle

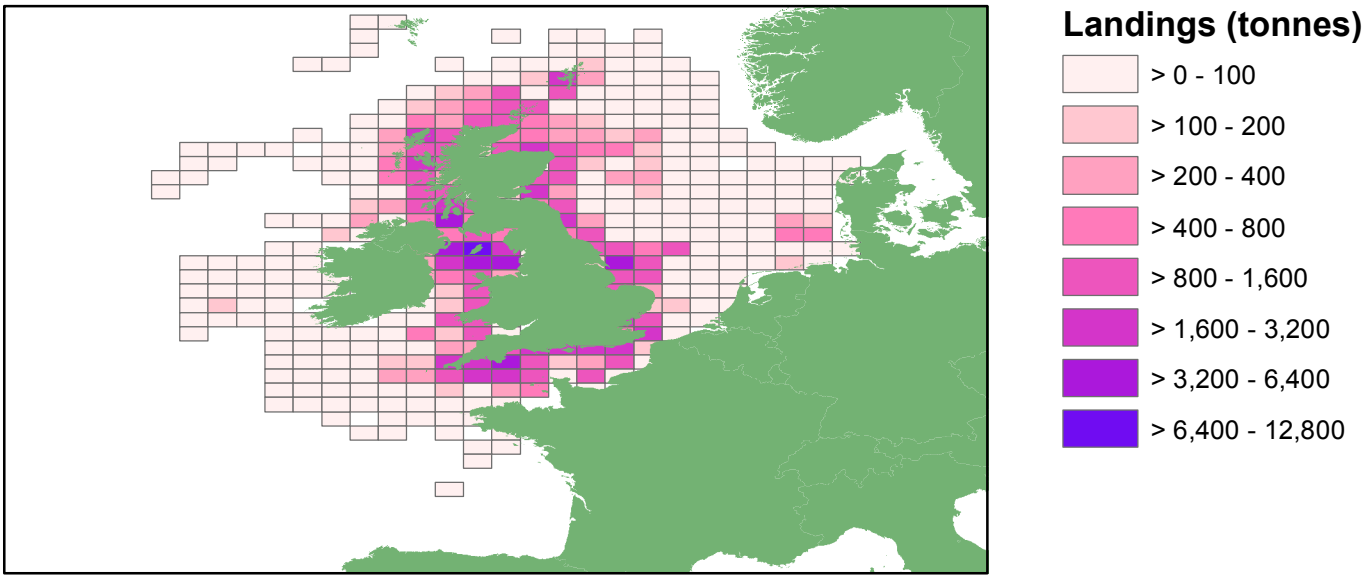


Chart 3.15b: Value of landings by ICES rectangle

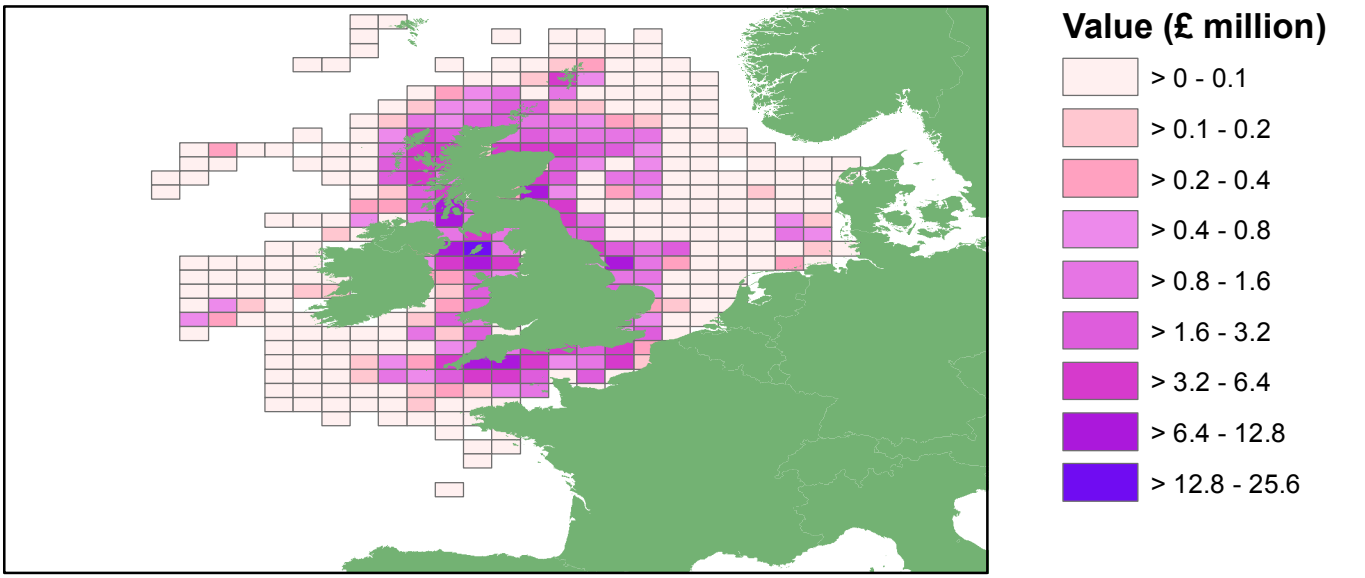
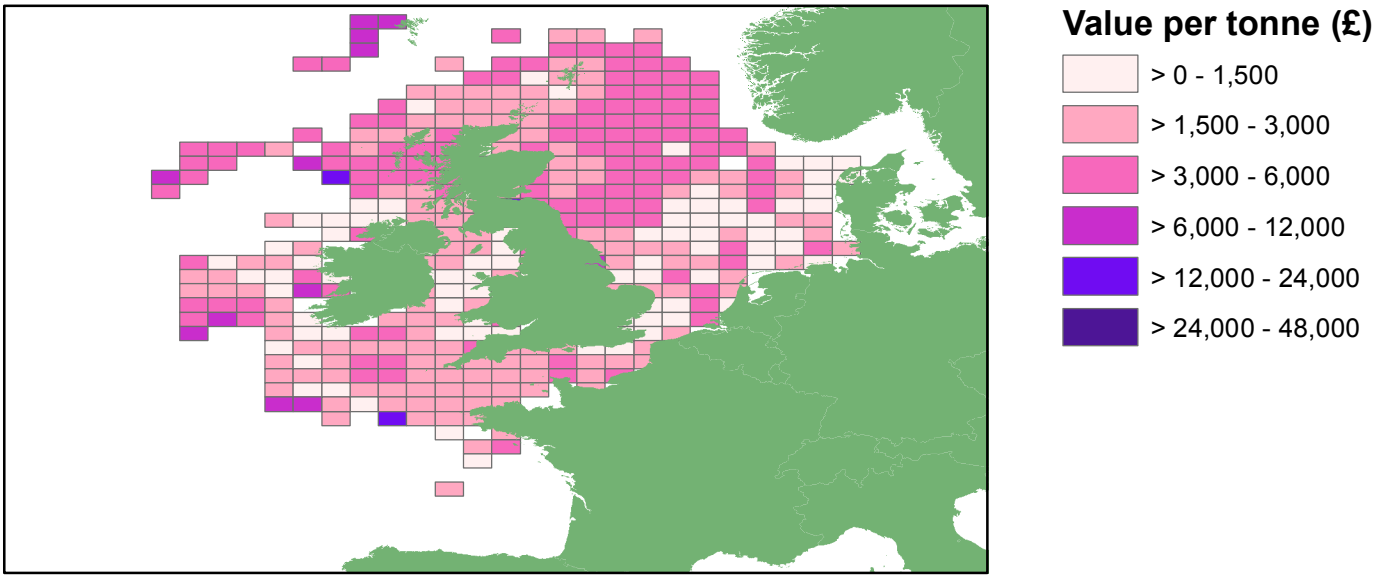


Chart 3.15c: Value of landings per tonne by ICES rectangle

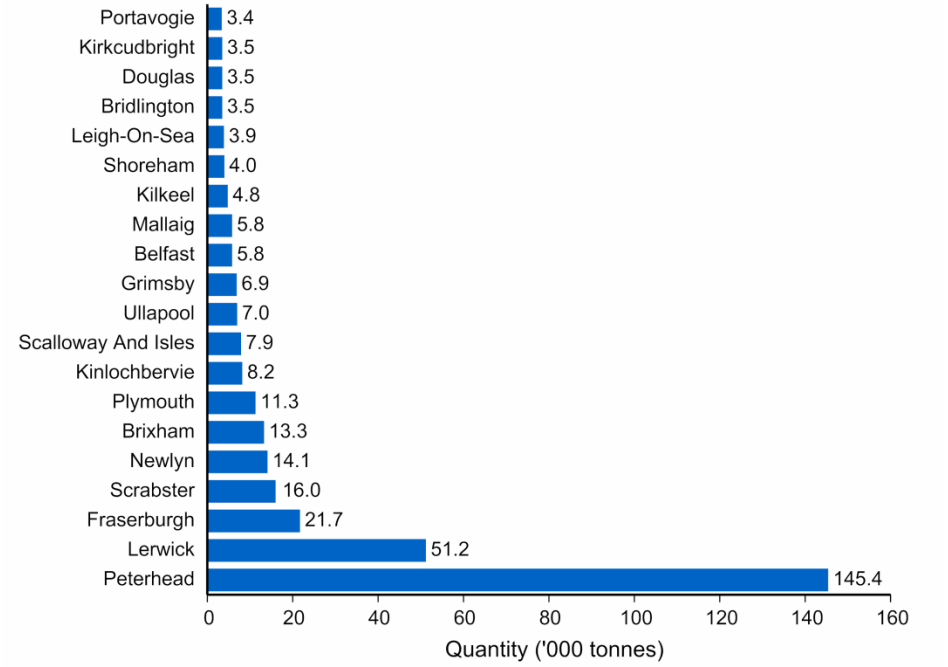


Landings into major ports by the UK fleet

Chart 3.16 shows the top twenty UK ports based on the quantity and value landed by UK vessels in 2016. Peterhead remains the port with by far the highest landings - 145 thousand tonnes, which is an increase of 18 thousand tonnes on 2015 landings. Lerwick is still in second place with 51 thousand tonnes and Fraserburgh remains third highest with landings of 22 thousand tonnes.

In 2016, Newlyn was the port with the largest quantity of landings in England (14 thousand tonnes), followed by Brixham (13 thousand tonnes) and Plymouth (11 thousand tonnes). However, the value of landings in Brixham (£31 million) exceeded those of Newlyn (£28 million) and Plymouth (£15 million). This is largely due to the different species landed in each port; Brixham, and to a lesser extent Newlyn, receive greater proportions of high value demersal fish and shellfish, whereas Plymouth's landings are dominated by lower value pelagic species.

Chart 3.16: Landings into the top 20 UK ports by UK vessels: 2016



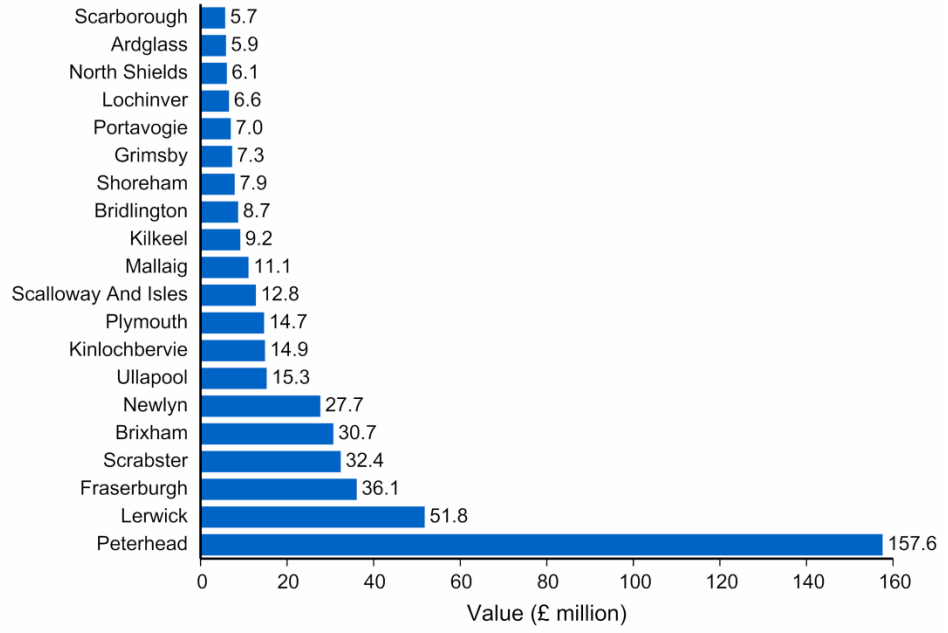
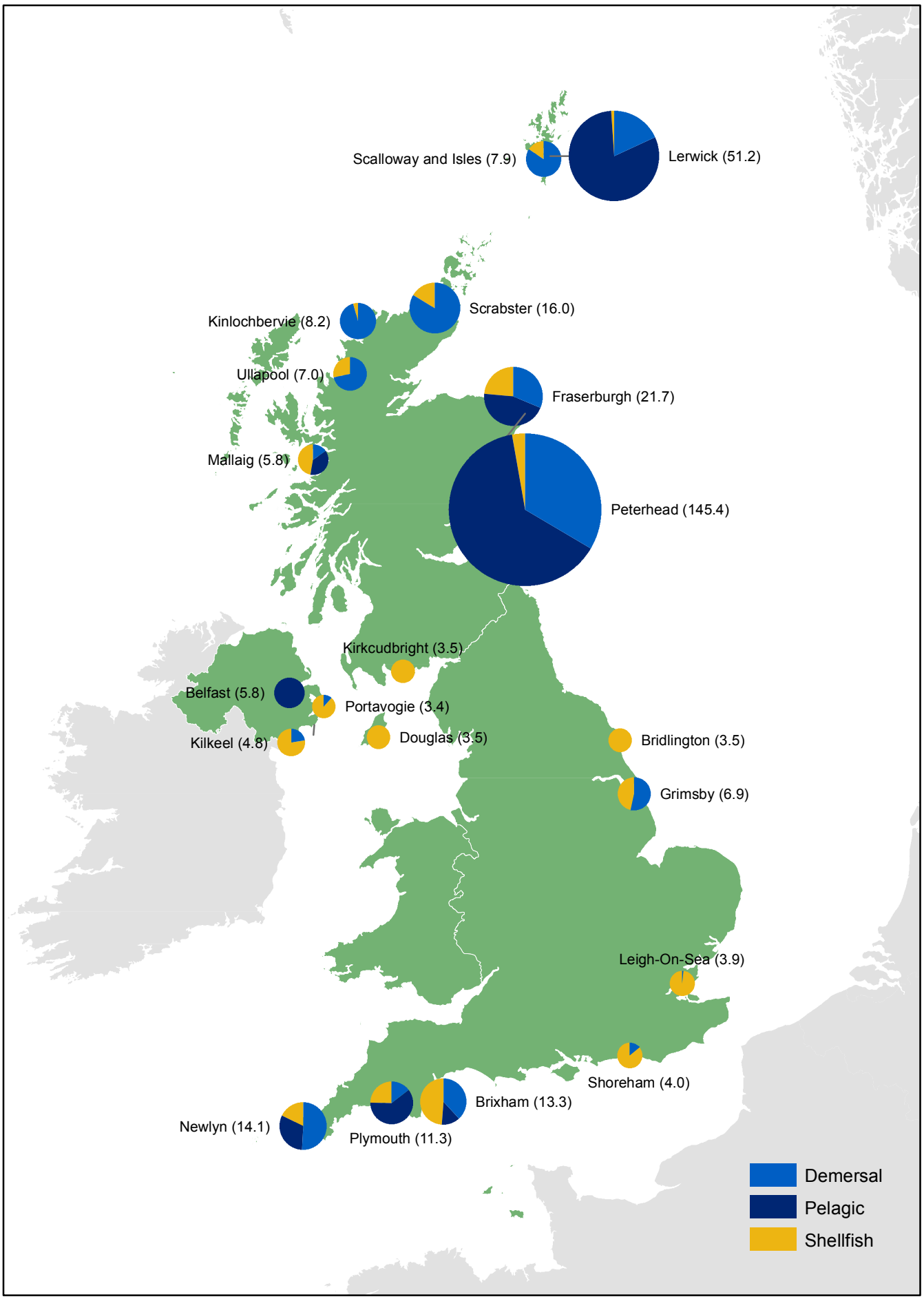


Chart 3.17: Landings into the top 20 UK ports[(a)] by UK vessels by species type: 2016 ('000 tonnes)



[(a)] Shows the top 20 major ports based on the quantity of fish landed by UK vessels at each port in 2016.
Contains Collins Bartholomew data. © Collins Bartholomew copyright and database right 2017.

The difference in species composition of landings is illustrated in Chart 3.17. The relatively low value per tonne of landings into Peterhead, Lerwick, Fraserburgh and Plymouth is because these are ports which specialise in relatively lower value pelagic species. These four ports alone account for 88 per cent of all UK landings of pelagic species into the UK.

Landings into the top three ports in Scotland account for 72 per cent of all landings by UK vessels into Scotland by quantity. In contrast, landings into Plymouth, Brixham and Newlyn form only 38 per cent of landings into England, with remaining landings more evenly spread around the English coast. The low number of English ports in Charts 3.16 and 3.17 is explained by the broad distribution of landings across English ports.

Landings abroad by the UK fleet

In 2016, UK vessels landed 255 thousand tonnes of fish abroad. Of this, 123 thousand tonnes of mostly mackerel and herring were landed into Norway. Sixty seven thousand tonnes were landed by UK vessels into the Netherlands and 33 thousand tonnes into Denmark. A small sector of the UK registered fishing fleet is in Dutch economic ownership; landings by these vessels contribute to the large quantities of fish landed into the Netherlands. Chart 3.18 shows the quantity of fish landed into each country, where this exceeds one thousand tonnes.

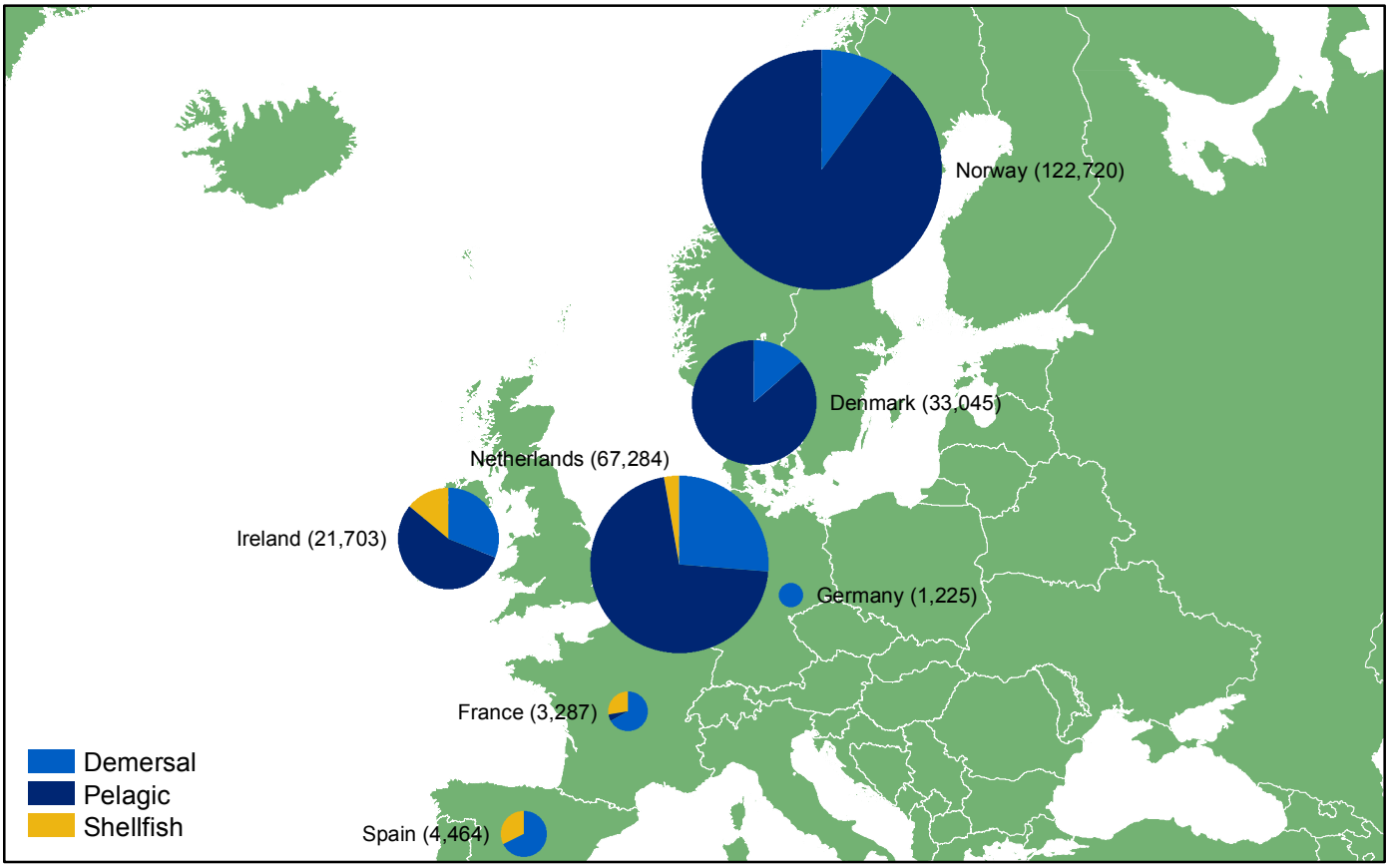
Seventy eight per cent of fish landed abroad by UK vessels were pelagic and 19 per cent were demersal. Different countries receive different species: the majority of fish landed into the Netherlands, Denmark and Ireland were pelagic while most fish landed into Spain, and all fish into Germany, were demersal. The species landed into each country is typically determined by market conditions and consumer tastes.

Landings into the UK by foreign vessels

In 2016, 53 thousand tonnes of fish were landed into the UK by foreign vessels, 16 per cent up on 2015, a result of increases in herring and mackerel landings. Chart 3.19 shows the quantities landed by vessel nationality, where these exceed one thousand tonnes.

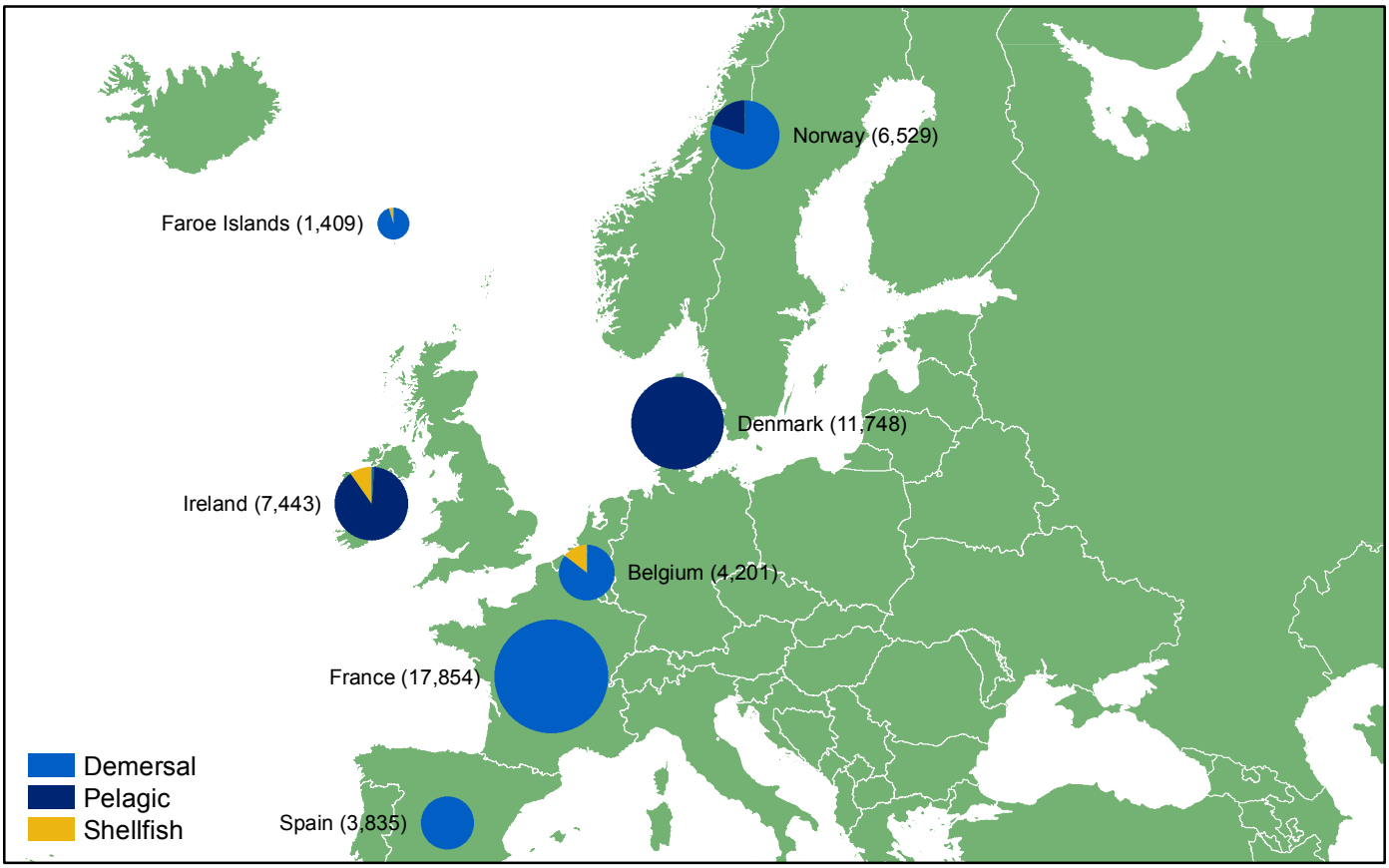
French and Danish registered vessels landed the largest quantity of fish into the UK in 2016 (18 and 12 thousand tonnes respectively). Three fifths of all fish landed into the UK are demersal with the large majority of the remainder being pelagic.

Chart 3.18: Landings abroad by UK vessels by country of landing: 2016 (tonnes)



Note: Only landings over 1,000 tonnes are shown.

Chart 3.19: Landings into the UK by foreign vessels by vessel nationality: 2016 (tonnes)



Note: Only landings over 1,000 tonnes are shown.

Landings by the UK fleet by area of capture

Table 3.8 and Chart 3.20 show that almost 40 per cent (272 thousand tonnes) of the quantity of fish landed by UK vessels in 2016 was caught in the Northern North Sea (area IVa). Large quantities were also caught in the West of Scotland (area VIa – 175 thousand tonnes up from 153 thousand tonnes in 2015) and the English Channel (area VIId/e - 63 thousand tonnes).

Different sea areas yield different proportions of species. The North Sea (areas IVa, IVb and IVc) provided almost 60 per cent of the demersal fish landed by the UK fleet, while the Northern North Sea and the West of Scotland were the source of 82 per cent of pelagic fish landed by UK vessels in 2016. The Irish Sea (area VIIa), the West of Scotland and the English Channel provided 60 per cent of the shellfish landed by the UK fleet. Typically, shellfish landings form a high proportion of landings from enclosed sea areas with large coastal stretches (Irish Sea, Bristol Channel, English Channel and the Southern North Sea), while pelagic species form the majority of landings from open waters such as the West of Scotland, Northern North Sea, West of Ireland (area VIIb) and Porcupine Bank (area VIIc).

TABLE 3.8 Landings into the UK and abroad by UK vessels by area of capture: 2016

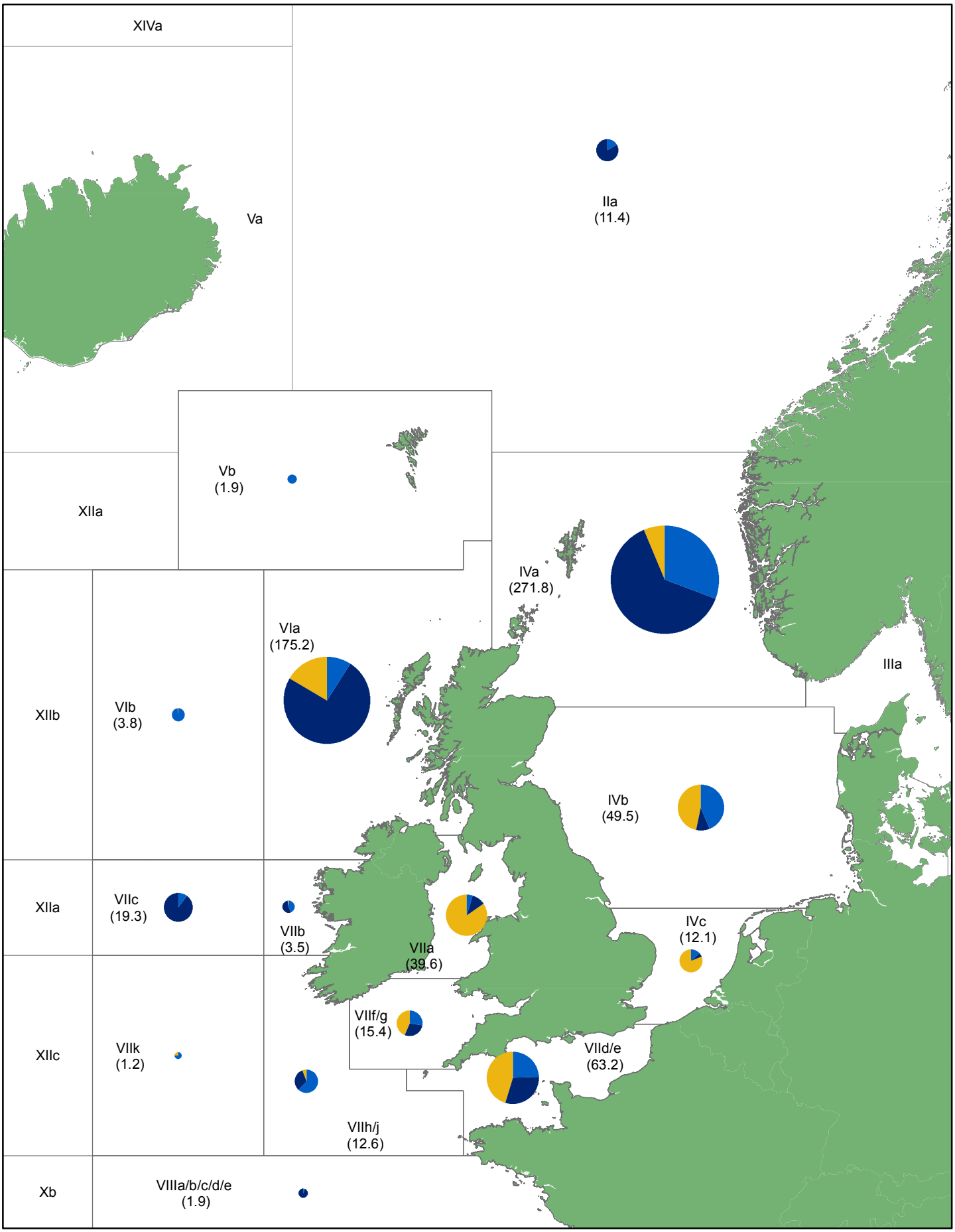
	Demersal		Pelagic		Shellfish		Total	
	Quantity ('000t)	Value (£ million)	Quantity ('000t)	Value (£ million)	Quantity ('000t)	Value (£ million)	Quantity ('000t)	Value (£ million)
Barents Sea/Murman Coast (I)	-	-	-	-	-	-	**-**	**-**
Norwegian Coast (IIa)	1.9	1.5	9.5	6.7	-	-	**11.4**	**8.3**
Bear Island & Spitzbergen (IIb)	5.3	5.1	-	-	-	-	**5.3**	**5.1**
Skagerrak and Kattegat (IIIa)	..	..	-	-	..	..	**..**	**..**
Northern North Sea (IVa)	83.6	143.8	171.2	147.5	16.9	43.4	**271.8**	**334.6**
Central North Sea (IVb)	21.7	34.5	4.8	2.6	23.0	65.1	**49.5**	**102.2**
Southern North Sea (IVc)	1.6	5.4	0.6	0.2	9.8	11.5	**12.1**	**17.2**
Faroes (Vb)	1.9	3.6	-	-	..	..	**1.9**	**3.7**
West of Scotland (VIa)	15.7	31.8	130.3	84.3	29.1	79.7	**175.2**	**195.8**
Rockall (VIb)	3.8	7.0	..	..	0.1	0.3	**3.8**	**7.3**
Irish Sea (VIIa)	1.9	2.3	4.2	2.2	33.4	53.3	**39.6**	**57.8**
West of Ireland (VIIb)	1.5	4.3	1.8	0.6	0.1	0.4	**3.5**	**5.3**
Porcupine Bank (VIIc)	2.0	5.5	17.2	3.8	..	0.1	**19.3**	**9.4**
English Channel (VIId/e)	15.5	43.8	19.0	7.5	28.8	59.8	**63.2**	**111.0**
Little/Great Sole Bank (VIIh/j)	7.8	22.9	4.1	2.3	0.7	2.0	**12.6**	**27.3**
West of Great Sole Bank (VIIk)	0.9	2.4	-	-	0.3	1.6	**1.2**	**4.0**
Rest of ICES area VII (VIIf/g)	4.3	11.4	4.4	1.7	6.8	12.9	**15.4**	**26.0**
Bay of Biscay (VIII)	0.1	0.5	1.8	1.1	..	..	**1.9**	**1.6**
East Coast of Greenland (XIV)	0.4	0.6	-	-	-	-	**0.4**	**0.6**
North Azores (XII)	-	-	-	-	-	-	**-**	**-**
Other Areas [(a)]	10.6	10.2	0.3	0.5	2.2	8.4	**13.0**	**19.1**
Total UK	**180.4**	**336.6**	**369.4**	**261.0**	**151.3**	**338.6**	**701.1**	**936.2**

Source: Fisheries Administrations in the UK

(a) Includes areas outside ICES areas such as the Western Indian Ocean and the Eastern Central, North West and South West Atlantic.

Note: Additional data on UK vessel landings are available for download from the MMO website as supplementary Table 3.8a.

Chart 3.20: Landings into the UK and abroad by UK vessels by area of capture: 2016 ('000 tonnes)



Key to Fishing areas follows on the next page.

Key to fishing areas

I. Barents Sea and Murman Coast

II. Northward of the Norwegian Coast
IIa. Norwegian Coast
IIb. Bear Island and Spitzbergen

III. Skagerrak, Kattegat, The Sound, Belts and Baltic
IIIa. Skagerrak and Kattegat

IV. North Sea
IVa. Northern North Sea
IVb. Central North Sea
IVc. Southern North Sea

V. Iceland and Faroes

VI. West of Scotland and Rockall
VIa. West of Scotland
VIb. Rockall

VII. West of Ireland and Channels
VIIa. Irish Sea
VIIb. West of Ireland
VIIc. Porcupine Bank
VIId, VIIe. English Channel (East, West)
VIIf, VIIg. Bristol Channel, South East of Ireland
VIIh, VIIj. Little Sole Bank, Great Sole Bank
VIIk. West of Great Sole Bank

VIII. Biscay

Landings by the UK fleet by sector

Eighty six per cent of the quantity of all landings by the UK fleet in 2016 was landed by vessels in a producer organisation. Table 3.9 shows the quantity and value of landings by the different sectors of the UK fleet.

Vessels in the Scottish FPO accounted for 19 per cent of the quantity and 18 per cent of the value of fish landed by the UK fleet (134 thousand tonnes, £170 million).

There is clear specialisation among producer organisations with regard to species targeted. For example, vessels in North Atlantic FPO, Lunar Group, Interfish and Klondyke primarily target pelagic species.

Over a third of UK vessels over 10 metres in length were in the non-sector (vessels without producer organisation membership). These vessels typically have limited access to fishing quota and primarily target shellfish species, which are mostly non-quota stocks. In 2016 they caught a third of all shellfish landed by the UK fleet. Vessels in the non-sector landed only small quantities of demersal and pelagic species.

TABLE 3.9 Landings into the UK and abroad by UK vessels by sector: 2016 [(a)]

	Demersal		Pelagic		Shellfish		Total	
	Quantity ('000t)	Value (£ million)	Quantity ('000t)	Value (£ million)	Quantity ('000t)	Value (£ million)	Quantity ('000t)	Value (£ million)
Scottish FPO Ltd	33.2	56.8	87.7	70.4	13.3	43.1	**134.2**	**170.3**
Shetland FPO Ltd	15.3	27.1	85.4	65.5	0.8	2.3	**101.4**	**94.9**
Lunar Group	2.8	4.4	54.3	36.7	..	..	**57.1**	**41.2**
Interfish	0.7	2.4	42.4	27.8	..	0.6	**43.4**	**30.8**
Klondyke	-	-	41.2	28.7	-	-	**41.2**	**28.7**
North Atlantic FPO Ltd	0.8	1.7	36.4	19.6	..	..	**37.2**	**21.3**
South Western FPO Ltd	5.5	15.9	4.8	1.2	14.9	28.4	**25.2**	**45.5**
The FPO Ltd	20.1	20.0	..	..	1.4	..	**21.6**	**20.2**
Northern Ireland FPO Ltd	5.3	7.9	5.7	4.0	9.3	22.1	**20.3**	**34.0**
Cornish FPO Ltd	12.0	28.6	1.6	0.5	3.9	9.3	**17.5**	**38.5**
North East of Scotland FO Ltd	12.5	20.3	..	..	1.1	4.3	**13.6**	**24.7**
Eastern England FPO Ltd	11.0	17.8	..	..	1.4	3.5	**12.4**	**21.4**
Fife FPO Ltd	5.4	9.8	..	..	5.3	10.4	**10.9**	**20.2**
Fleetwood FPO Ltd	9.4	27.9	..	0.5	..	..	**9.8**	**28.7**
North Sea FPO Ltd	7.6	12.4	..	..	1.2	3.1	**8.8**	**15.5**
Anglo Northern Irish FPO Ltd	..	..	4.5	3.3	3.1	7.5	**8.1**	**11.2**
Anglo Scottish FPO Ltd	5.3	7.7	..	..	2.4	7.3	**7.7**	**15.0**
Lowestoft FPO Ltd	7.0	13.7	..	..	..	..	**7.2**	**14.2**
Aberdeen FPO	6.2	10.3	..	..	..	0.9	**6.5**	**11.2**
Northern Producers Organisation Ltd	5.3	10.9	..	..	1.1	3.1	**6.4**	**14.0**
West of Scotland FPO Ltd	..	..	2.2	0.5	2.6	8.0	**5.0**	**8.8**
Orkney FPO Ltd	3.6	5.8	..	..	1.3	2.5	**4.8**	**8.3**
Wales and West Coast FPO Ltd	4.1	13.1	..	..	..	..	**4.2**	**13.2**
Isle of Man Non-Sector	..	..	-	-	3.2	5.5	**3.3**	**5.5**
Non-sector vessels	0.7	1.5	..	..	50.4	92.8	**51.1**	**94.3**
10m and under pool	5.9	19.7	2.7	2.1	33.8	82.7	**42.3**	**104.5**
Commercial non-vessel landings	-	-	-	-	-	-	**-**	**-**
Total All Sectors	**180.4**	**336.6**	**369.4**	**261.0**	**151.3**	**338.6**	**701.1**	**936.2**

Source: Fisheries Administrations in the UK

(a) Landings by vessels 10 metres and under with membership of a producer organisation are attributed to that organisation and not the 10m and under pool.

Vessels 10 metres and under in length without producer organisation membership (the '10m and under pool') also landed relatively small quantities of demersal and pelagic species. Four fifths of their catch is shellfish. The fishing methods used by this sector and the different species targeted mean that they typically gain higher than average prices for their catch.

Landings by the UK fleet by vessel length

Seventy two per cent of the quantity of landings by the UK fleet in 2016 was caught by vessels over 24 metres in length (see Table 3.10). At the end of 2016, these vessels constituted just 4 per cent of the UK fleet by number, yet their landings of pelagic species formed 96 per cent of the annual total for the UK fleet.

Ninety one per cent of all landings of demersal species by the UK fleet were by vessels over 18 metres in length. In contrast, landings of shellfish are much more evenly distributed across the fleet, with vessels 10 metres and under in length (including those in producer organisations) accounting for 23 per cent of the quantity of landings.

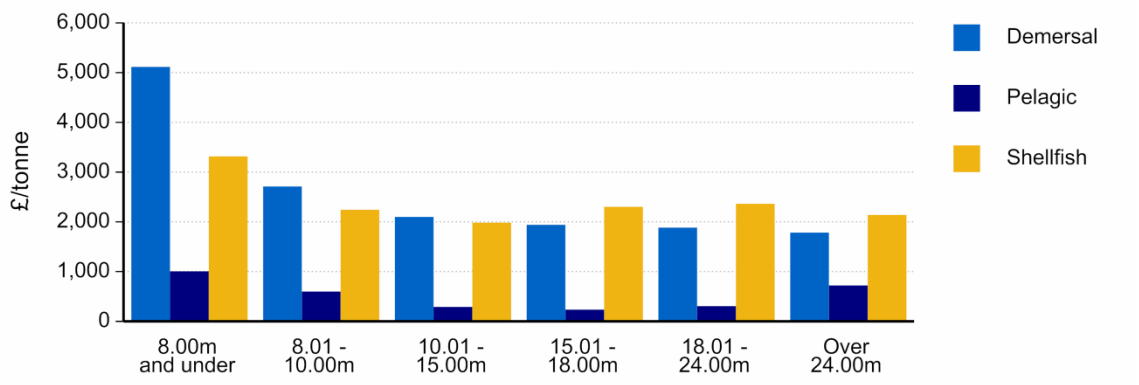
TABLE 3.10 Landings into the UK and abroad by UK vessels by vessel length: 2016

Overall Length	Demersal		Pelagic		Shellfish		Total	
	Quantity ('000t)	Value (£ million)	Quantity ('000t)	Value (£ million)	Quantity ('000t)	Value (£ million)	Quantity ('000t)	Value (£ million)
8.00m and under	1.5	7.8	1.3	1.3	7.0	23.2	**9.8**	**32.3**
8.01 - 10.00m	4.5	12.1	1.4	0.8	28.2	63.2	**34.1**	**76.2**
10.01 - 15.00m	5.9	12.3	9.7	2.8	43.1	85.5	**58.7**	**100.5**
15.01 - 18.00m	3.6	7.0	1.7	..	20.6	47.4	**25.9**	**54.8**
18.01 - 24.00m	33.6	63.3	0.5	..	31.7	74.8	**65.8**	**138.3**
Over 24.00m	131.4	234.1	354.7	255.5	20.8	44.4	**506.8**	**534.1**
Total	**180.4**	**336.6**	**369.4**	**261.0**	**151.3**	**338.6**	**701.1**	**936.2**

Source: Fisheries Administrations in the UK

Although on average longer vessels land much greater quantities of fish than their smaller counterparts, they typically achieve a much lower average price for the fish landed (Chart 3.21). For example, the average price of demersal fish landed by vessels over 24 metres is £1.78 per kilo, while for the 8 metre and under fleet it is £5.12 per kilo. Differences, albeit less marked, apply for shellfish, with an average price of £3.31 per kilo for landings by the 8 metre and under fleet, compared with £2.14 per kilo for the over 24 metre fleet. The difference in prices is partly due to differences in species targeted, fishing methods used and choice of markets.

Chart 3.21: Average price of landings into the UK and abroad by UK vessels by vessel length: 2016



Landings by the UK fleet by gear used

Eighty seven per cent of fish landed by UK vessels in 2016 was captured using mobile gears, such as beam trawls, demersal trawls and seines, pelagic seines and dredges (see Table 3.11). Almost all landings of pelagic fish and 89 per cent of all demersal fish were caught using mobile gears. Passive gears such as pots and traps were used to catch 44 per cent of the shellfish landed by the UK fleet.

A large majority of demersal and pelagic fish landed by UK vessels in 2016 were caught using demersal trawls and seines. This broad category includes otter, nephrops, shrimp and pair trawls, and all demersal seines. Pots and traps accounted for 43 per cent of shellfish landings, with dredges and demersal trawl/seine catching 29 per cent and 25 per cent respectively.

The type of gear used can make a difference to the average price of fish. For demersal species, the average price of fish captured using passive gears is £2.93 per kilo compared with £1.74 per kilo for mobile gears. The difference is smaller for shellfish where average prices were £2.37 per kilo for mobile gear compared with £2.07 for passive gear. Price differentials are also observed between different gears of the same class. For example, shellfish caught using dredges were sold at an average price of £1.73 per kilo, while shellfish caught using demersal trawls and seines were sold at an average price of £3.05 per kilo.

This variation in prices partly reflects the different species caught by different gears. For example, demersal trawls and seines capture the majority of the nephrops landed by the UK fleet, while the bulk of the landings from dredges are scallops, which sell at a lower average price. However, there can also be a premium attached to the method by which the fish are captured.

TABLE 3.11 Landings into the UK and abroad by UK vessels by gear used: 2016

	Demersal		Pelagic		Shellfish		Total	
	Quantity ('000t)	Value (£ million)	Quantity ('000t)	Value (£ million)	Quantity ('000t)	Value (£ million)	Quantity ('000t)	Value (£ million)
Beam trawl	18.2	45.1	..	..	4.3	12.0	**22.5**	**57.1**
Demersal trawl/seine [(a)]	142.6	233.8	354.0	249.6	37.3	113.8	**533.9**	**597.2**
Dredge	..	0.8	..	..	43.4	75.1	**43.6**	**75.9**
Pelagic seine	..	..	11.2	8.4	..	..	**11.2**	**8.4**
Other mobile gears	..	..	-	-	..	..	**..**	**..**
Total Mobile Gears	**161.0**	**279.7**	**365.2**	**258.0**	**85.0**	**201.2**	**611.2**	**738.9**
Drift and fixed nets	9.5	26.3	2.2	0.8	..	1.3	**12.2**	**28.4**
Gears using hooks	9.7	27.1	1.8	2.0	..	0.5	**11.7**	**29.7**
Pots and traps	..	3.4	..	..	64.3	130.9	**64.7**	**134.6**
Other passive gears	..	..	..	..	1.3	4.6	**1.3**	**4.6**
Total Passive Gears	**19.4**	**56.8**	**4.2**	**3.1**	**66.3**	**137.4**	**89.9**	**197.3**
Total All Sectors	**180.4**	**336.6**	**369.4**	**261.0**	**151.3**	**338.6**	**701.1**	**936.2**

Source: Fisheries Administrations in the UK

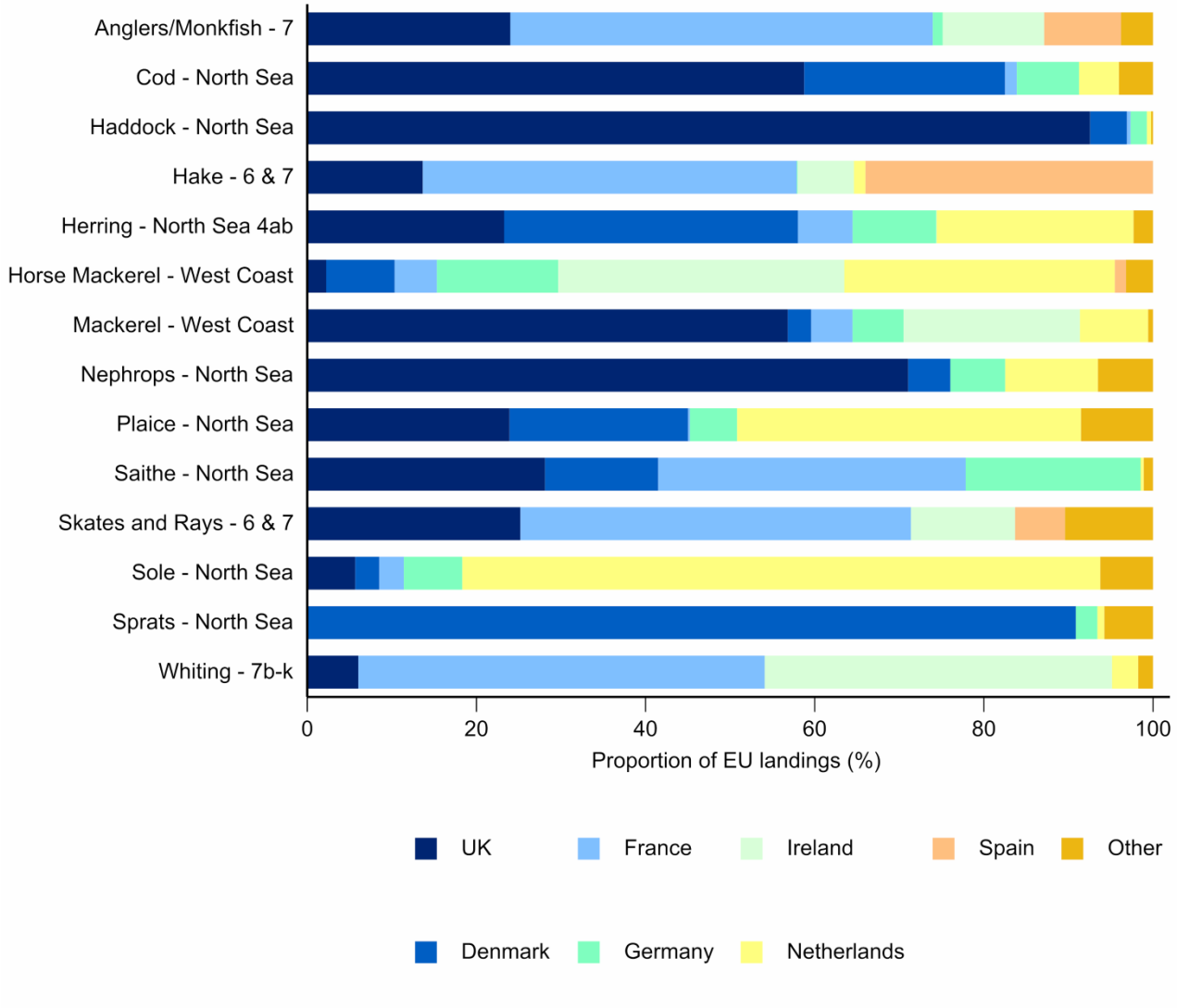
(a) includes midwater trawl gears (for example otter and pair trawls) which, depending on the mesh size, are used to target both demersal and pelagic species.

Uptake of quotas by EU member states

Table 3.12 shows the quota held by EU member states at the end of 2016 (after international quota transfers) for each stock, together with landings by each member state during 2016. The shares of the quota held by each member state vary considerably across stocks, with different countries landing different quantities of each stock as a consequence.

Chart 3.22 illustrates the difference in landings by member states for stocks of major importance to the UK and other EU countries. In 2016, the UK landed 93 per cent of all North Sea haddock (26 thousand tonnes) and 71 per cent of all North Sea nephrops (9 thousand tonnes). This dominance is not seen across all stocks. For example, Danish vessels landed 91 per cent of all North Sea sprats, Dutch vessels landed 75 per cent of all North Sea sole and French vessels landed 50 per cent of Anglers in area 7.

Chart 3.22: Share of landings of key stocks by EU member states: 2016



Note: The data in this chart are official statistics and not subject to National Statistics accreditation.

The figures here are derived from reports to the European Commission by each member state. These have to be submitted to the Commission by 15 February 2017. The landings data for the UK may therefore differ from those reported earlier in this chapter, which are based on more recent figures.

TABLE 3.12 Quota, catch and uptake by EU Member States: 2016

Tonnes

Species	Area		UK	Denmark	France	Germany	Ireland	Netherlands	Spain	Other	Total
Albacore	**Northern**	Quota	149	-	5,632	-	2,325	-	14,754	1,681	**24,542**
	Atlantic ocean, north	Catch	..	-	4,140	-	2,324	-	16,646	1,111	**24,222**
	of latitude 05° N	Uptake %	..	-	74	-	100	-	113	66	**99**
Alfonsinos	**3-10, 12 & 14**	Quota	1	-	20	-	-	-	86	203	**310**
	III, IV, V, VI, VII, VIII, IX,	Catch	1	-	9	-	-	-	79	202	**291**
	X, XII, XIV (EC & Int)	Uptake %	87	-	43	-	-	-	92	100	**94**
Anglers / Monkfish	**North Sea**	Quota	9,798	1,002	79	258	-	91	-	335	**11,563**
	IIa (EC), IV (EC)	Catch	9,689	903	37	239	-	91	-	254	**11,212**
		Uptake %	99	90	47	93	-	100	-	76	**97**
	4 (Norwegian	Quota	180	1,260	-	18	-	43	-	-	**1,500**
	waters)	Catch	179	1,187	..	17	-	43	-	-	**1,426**
	IV (Norway)	Uptake %	100	94	n/a	93	-	99	-	-	**95**
	West of Scotland	Quota	2,805	-	2,337	251	744	-	238	-	**6,375**
	Vb (EC), VI, XII, XIV	Catch	2,784	-	1,744	229	741	-	234	-	**5,732**
		Uptake %	99	-	75	91	100	-	98	-	**90**
	7	Quota	8,025	-	19,428	402	3,812	1	3,239	2,219	**37,125**
	VII	Catch	7,456	-	15,511	361	3,731	..	2,817	1,180	**31,056**
		Uptake %	93	-	80	90	98	81	87	53	**84**
Black Scabbard Fish	**5-7 & 12**	Quota	194	-	3,134	42	1	3	373	-	**3,747**
	V,VI, VII and XII (EC	Catch	96	-	2,432	-	-	1	257	-	**2,786**
	and International)	Uptake %	49	-	78	-	-	49	69	-	**74**
Blue Ling	**2 & 4**	Quota	14	4	23	4	4	-	-	-	**49**
	II and IV (EC and	Catch	7	..	14	..	-	-	-	-	**21**
	International)	Uptake %	53	1	59	3	-	-	-	-	**43**
	6 & 7	Quota	979	-	3,967	54	14	-	190	8	**5,213**
	VI and VII (EC and	Catch	275	-	1,085	-	-	-	171	-	**1,530**
	International)	Uptake %	28	-	27	-	-	-	90	-	**29**
Blue Whiting	**Northern**	Quota	41,868	37,994	14,894	21,404	27,759	58,288	121	1,267	**203,595**
	I,II,III,IV,V,VII,VIIIabde,	Catch	38,270	37,753	10,156	19,929	27,658	58,041	12	1,253	**193,072**
	XII,XIV (EC and Int)	Uptake %	91	99	68	93	100	100	10	99	**95**
Boarfish	**6-8**	Quota	3,110	12,084	-	11	33,843	175	-	-	**49,222**
	VI, VII and VIII (EC and	Catch	12	417	-	7	17,696	174	-	-	**18,306**
	International)	Uptake %	..	3	-	63	52	100	-	-	**37**
Cod	**1 & 2 (Norwegian**	Quota	5,046	-	3,482	1,904	-	-	4,724	4,644	**19,800**
	waters)	Catch	4,990	-	3,471	1,904	-	-	4,717	4,419	**19,502**
	I, II (Norway)	Uptake %	99	-	100	100	-	-	100	95	**98**
	1 & 2b	Quota	8,759	-	4,315	4,434	-	1	9,731	5,232	**32,472**
	I, IIb	Catch	8,593	472	4,246	4,434	-	-	9,732	5,562	**33,039**
		Uptake %	98	n/a	98	100	-	-	100	106	**102**
	North Sea	Quota	16,754	6,767	823	2,362	-	1,549	-	1,239	**29,493**
	IIa (EC), IV	Catch	16,599	6,712	395	2,080	-	1,330	-	1,140	**28,256**
		Uptake %	99	99	48	88	-	86	-	92	**96**
	West of Scotland	Quota	45	-	12	1	16	-	-	-	**74**
	VIb, XII, XIV	Catch	37	-	-	-	15	-	-	-	**52**
		Uptake %	83	-	-	-	91	-	-	-	**70**
	7a	Quota	37	-	1	-	103	..	-	3	**144**
	VIIa	Catch	36	-	..	-	102	-	-	3	**140**
		Uptake %	95	-	3	-	99	-	-	99	**97**
	7d	Quota	187	-	1,804	-	-	51	-	84	**2,126**
	VIId	Catch	101	-	279	-	-	37	-	38	**456**
		Uptake %	54	-	15	-	-	72	-	46	**21**
	7b-c, e-k	Quota	495	-	3,456	-	979	2	-	209	**5,141**
	VII (ex VIIa, VIId),VIII, IX,	Catch	365	-	2,076	-	881	1	..	97	**3,421**
	X; CECAF 34.1.1 (EC)	Uptake %	74	-	60	-	90	58	n/a	46	**67**
	Greenland waters	Quota	382	-	-	1,718	-	-	-	-	**2,100**
	NAFO 1F and XIV	Catch	378	-	-	1,716	-	-	-	-	**2,094**
	(Greenland)	Uptake %	99	-	-	100	-	-	-	-	**100**
	NAFO 3M	Quota	1,198	-	-	-	-	-	1,235	6,044	**8,477**
	3M (NAFO)	Catch	1,198	-	-	-	-	-	1,232	6,030	**8,459**
		Uptake %	100	-	-	-	-	-	100	100	**100**
Cod and Haddock	**5b (Faroese waters)**	Quota	836	-	114	-	-	-	-	-	**950**
	Vb (Faroes)	Catch	768	-	8	-	-	-	-	-	**776**
		Uptake %	92	-	7	-	-	-	-	-	**82**
Dabs and Flounders	**North Sea**	Quota	1,558	1,888	196	2,582	-	11,421	-	789	**18,434**
	IIa (EC), IV (EC)	Catch	385	406	95	262	-	3,785	-	528	**5,461**
		Uptake %	25	22	48	10	-	33	-	67	**30**
Flatfish	**5b (Faroese waters)**	Quota	68	-	14	18	-	-	-	-	**100**
	Vb (Faroes)	Catch	39	-	..	-	-	-	-	-	**39**
		Uptake %	58	-	..	-	-	-	-	-	**39**

Source: European Commission

TABLE 3.12 Quota, catch and uptake by EU Member States: 2016 (cont.)

Tonnes

Species	Area		UK	Denmark	France	Germany	Ireland	Netherlands	Spain	Other	Total
Greater Forkbeard	**1-4**	Quota	16	1	11	11	-	-	-	-	**39**
	I, II, III, IV (EC and	Catch	2	1	1	-	-	1	-	-	**5**
	International)	Uptake %	11	97	12	-	-	n/a	-	-	**12**
	5-7	Quota	980	-	790	13	68	1	839	-	**2,690**
	V, VI, VII (EC and	Catch	103	-	429	-	13	-	637	-	**1,182**
	International)	Uptake %	10	-	54	-	20	-	76	-	**44**
Greenland Halibut	**1 & 2 (Norwegian**	Quota	21	-	4	8	-	-	9	8	**50**
	waters)	Catch	21	-	1	7	-	-	28	26	**83**
	I, II (Norway)	Uptake %	100	-	18	96	-	-	307	327	**166**
	2a, 4 & 6	Quota	974	18	454	13	3	16	60	18	**1,556**
	IIa (EC), IV, VI (EC	Catch	498	-	334	..	-	..	17	-	**849**
	and International)	Uptake %	51	-	73	1	-	1	28	-	**55**
Haddock	**1 & 2 (Norwegian**	Quota	412	-	242	137	-	-	175	282	**1,247**
	waters)	Catch	390	-	211	135	-	-	146	281	**1,164**
	I, II (Norway)	Uptake %	95	-	88	99	-	-	84	100	**93**
	North Sea	Quota	44,464	2,622	1,414	1,598	-	386	-	652	**51,136**
	IIa (EC), IV	Catch	26,419	1,243	122	551	-	144	-	63	**28,544**
		Uptake %	59	47	9	35	-	37	-	10	**56**
	West of Scotland	Quota	5,077	3	564	9	1,153	50	37	15	**6,907**
	5b & 6a	Catch	3,101	2	62	-	1,034	28	33	-	**4,260**
	Vb (EC), VIa	Uptake %	61	79	11	-	90	55	90	-	**62**
	West of Scotland 6b	Quota	2,561	-	361	25	370	-	..	11	**3,328**
	VIb, XII, XIV	Catch	2,160	-	-	-	362	-	-	-	**2,522**
		Uptake %	84	-	-	-	98	-	-	-	**76**
	7a	Quota	895	-	95	-	719	-	-	31	**1,740**
	VIIa	Catch	825	-	1	-	647	-	-	5	**1,478**
		Uptake %	92	-	1	-	90	-	-	16	**85**
	7b-k	Quota	748	-	4,826	-	1,799	1	-	96	**7,470**
	VII (ex VIIa),VIII, IX,	Catch	692	-	4,678	-	1,785	26	..	90	**7,271**
	X; CECAF 34.1.1 (EC)	Uptake %	93	-	97	-	99	4,691	n/a	94	**97**
Hake	**North Sea**	Quota	5,317	2,206	2,591	471	-	64	-	66	**10,715**
	IIa (EC), IV	Catch	5,052	1,919	2,153	423	-	52	-	60	**9,659**
		Uptake %	95	87	83	90	-	82	-	91	**90**
	6 & 7	Quota	8,023	2	27,505	50	3,554	807	21,614	88	**61,643**
	Vb (EC), VI, VII, XII,	Catch	7,277	2	23,574	50	3,552	730	18,110	15	**53,310**
	XIV	Uptake %	91	98	86	100	100	90	84	17	**86**
Herring	**Atlanto Scandian**	Quota	4,061	10,331	-	2,583	2,095	3,164	13	7	**22,256**
	I, II	Catch	4,031	10,384	-	2,583	2,048	3,143	-	-	**22,190**
		Uptake %	99	101	-	100	98	99	-	-	**100**
	North Sea 4ab	Quota	70,710	111,602	20,365	31,350	141	73,658	-	7,263	**315,088**
	IV (EC and Norway	Catch	73,420	109,592	20,356	31,221	127	73,436	-	7,261	**315,414**
	North of 53° 30'N)	Uptake %	104	98	100	100	90	100	-	100	**100**
	4c & 7d	Quota	6,374	38	14,489	12,871	-	23,747	-	97	**57,615**
	IVc (exB/W), VIId	Catch	6,307	26	14,458	12,871	-	23,212	-	28	**56,902**
		Uptake %	99	68	100	100	-	98	-	28	**99**
	West Coast	Quota	4,058	24	23	1,029	1,079	401	-	-	**6,613**
	Vb (EC), VIa (North	Catch	3,254	23	-	1,028	677	362	-	-	**5,345**
	of 56° 30' N), VIb	Uptake %	80	96	-	100	63	90	-	-	**81**
	7a (Manx and	Quota	4,432	-	-	-	191	-	-	-	**4,623**
	Mourne)	Catch	4,245	-	-	-	143	-	-	-	**4,387**
	VIIa (Manx & Mourne)	Uptake %	96	-	-	-	75	-	-	-	**95**
	7ef	Quota	567	-	457	-	-	-	-	-	**1,023**
	VIIe, f	Catch	431	-	1	-	-	-	-	..	**432**
		Uptake %	76	-	..	-	-	-	-	n/a	**42**
	7ghjk	Quota	625	5	600	422	17,351	1,125	-	-	**20,127**
	VIIg, h, j, k	Catch	559	-	-	419	14,788	1,015	-	-	**16,781**
		Uptake %	89	-	-	99	85	90	-	-	**83**
Horse Mackerel	**North Sea**	Quota	5,715	265	749	2,467	12	3,472	-	96	**12,776**
	IVb, IVc, VIId	Catch	4,697	266	643	1,874	-	2,946	-	56	**10,481**
		Uptake %	82	100	86	76	-	85	-	58	**82**
	West Coast	Quota	8,077	8,352	8,468	15,891	30,846	40,649	11,426	2,674	**126,383**
	IIa (EC), IVa, Vb (EC), VI, VII	Catch	1,822	6,590	4,066	11,669	27,543	26,036	1,084	2,596	**81,406**
	(ex VIId),VIIIabde, XII, XIV	Uptake %	23	79	48	73	89	64	9	97	**64**
Lemon Sole and	**North Sea**	Quota	3,554	906	261	122	-	834	-	714	**6,391**
Witches	*IIa (EC), IV (EC)*	Catch	1,763	459	15	69	-	405	-	461	**3,171**
		Uptake %	50	51	6	57	-	49	-	65	**50**
Ling	**Deep Sea 1 & 2**	Quota	9	9	9	9	-	-	-	-	**36**
	I, II	Catch	3	-	6	..	-	-	-	-	**9**
		Uptake %	37	-	67	1	-	-	-	-	**26**

Source: European Commission

TABLE 3.12 Quota, catch and uptake by EU Member States: 2016 (cont.)

Tonnes

Species	Area		UK	Denmark	France	Germany	Ireland	Netherlands	Spain	Other	Total
Ling (continued)	**4 (EC waters)**	Quota	2,515	235	262	43	-	1	-	15	**3,071**
	IV (EC)	Catch	2,426	221	304	43	-	..	-	14	**3,008**
		Uptake %	96	94	116	99	-	10	-	92	**98**
	4 (Norwegian waters)	Quota	144	1,111	13	55	-	2	-	-	**1,325**
	waters)	Catch	129	523	..	50	-	-	-	-	**702**
	IV (Norway S of 62°N)	Uptake %	90	47	2	90	-	-	-	-	**53**
	6-10, 12 & 14	Quota	3,896	8	3,757	102	818	-	2,554	95	**11,229**
	VI, VII, VIII, IX, X,	Catch	2,767	-	1,870	..	755	-	1,457	39	**6,889**
	XII, XIV (EC)	Uptake %	71	-	50	..	92	-	57	41	**61**
Ling and Blue Ling	**5b (Faroese waters)**	Quota	220	-	1,365	515	-	-	-	-	**2,100**
	Vb (Faroes)	Catch	120	-	5	-	-	-	-	-	**126**
		Uptake %	55	-	..	-	-	-	-	-	**6**
Mackerel	**North Sea**	Quota	8,549	13,354	2,165	310	-	5,079	-	4,439	**33,896**
	IIa (EC), IV	Catch	8,496	14,677	1,921	309	-	5,053	-	4,387	**34,844**
		Uptake %	99	110	89	100	-	99	-	99	**103**
	West Coast	Quota	195,937	10,221	22,062	21,212	77,400	31,940	24	2,074	**360,870**
	II (ex EC),Vb (EC),VI,	Catch	209,143	10,218	17,985	22,212	76,756	29,735	24	2,083	**368,156**
	VII, VIIIabde, XII,XIV	Uptake %	107	100	82	105	99	93	100	100	**102**
Megrims	**North Sea**	Quota	2,727	37	47	8	-	12	-	40	**2,870**
	IIa (EC), IV (EC)	Catch	1,276	33	15	1	-	2	-	1	**1,328**
		Uptake %	47	89	32	19	-	14	-	3	**46**
	West of Scotland	Quota	1,772	-	2,515	-	740	-	644	-	**5,671**
	Vb (EC), VI, XII, XIV	Catch	810	-	189	-	682	-	169	-	**1,849**
		Uptake %	46	-	8	-	92	-	26	-	**33**
	7	Quota	3,550	-	7,391	-	3,335	-	5,186	714	**20,176**
	VII	Catch	2,836	-	4,141	-	2,610	-	3,074	303	**12,964**
		Uptake %	80	-	56	-	78	-	59	42	**64**
Nephrops	**North Sea**	Quota	10,801	818	24	1,167	-	1,808	-	1,034	**15,652**
	IIa (EC), IV (EC)	Catch	9,444	664	-	862	-	1,458	-	866	**13,294**
		Uptake %	87	81	-	74	-	81	-	84	**85**
	West of Scotland	Quota	17,636	-	147	-	245	-	86	-	**18,114**
	Vb (EC), VI	Catch	14,639	-	-	-	111	-	..	-	**14,751**
		Uptake %	83	-	-	-	46	-	..	-	**81**
	7	Quota	8,902	-	6,226	-	10,338	-	104	26	**25,595**
	VII	Catch	7,385	-	510	-	9,505	-	59	4	**17,462**
		Uptake %	83	-	8	-	92	-	56	14	**68**
Northern Prawn	**North Sea**	Quota	565	2,021	-	-	-	52	-	81	**2,718**
	IIa (EC), IV (EC)	Catch	-	85	-	-	-	-	-	-	**85**
		Uptake %	-	4	-	-	-	-	-	-	**3**
Norway Pout	**North Sea**	Quota	32	141,496	-	29	-	104	-	110	**141,771**
	IIa (EC), IV (EC)	Catch	30	10,717	-	27	-	8	-	1	**10,782**
		Uptake %	94	8	-	92	-	7	-	1	**8**
Plaice	**North Sea**	Quota	27,552	27,010	1,571	7,855	-	62,767	-	8,743	**135,499**
	IIa (EC), IV	Catch	18,733	16,544	169	4,371	-	31,855	-	6,672	**78,343**
		Uptake %	68	61	11	56	-	51	-	76	**58**
	West of Scotland	Quota	388	-	9	-	261	-	-	-	**658**
	Vb (EC), VI, XII, XIV	Catch	70	-	-	-	30	-	-	-	**100**
		Uptake %	18	-	-	-	11	-	-	-	**15**
	7a	Quota	296	-	13	-	783	9	-	120	**1,222**
	VIIa	Catch	56	-	..	-	614	-	-	82	**751**
		Uptake %	19	-	..	-	78	-	-	68	**61**
	7de	Quota	3,103	-	7,291	-	-	82	-	2,572	**13,048**
	VIId, e	Catch	2,223	-	1,761	-	-	57	-	2,392	**6,433**
		Uptake %	72	-	24	-	-	70	-	93	**49**
	7fg	Quota	30	-	119	-	66	-	-	247	**462**
	VIIf, g	Catch	27	-	108	-	67	-	-	244	**446**
		Uptake %	88	-	91	-	102	-	-	99	**96**
	7hjk	Quota	17	-	63	-	47	2	-	7	**136**
	VIIh, j, k	Catch	15	-	45	-	34	-	-	7	**102**
		Uptake %	91	-	72	-	73	-	-	97	**75**
Pollack	**West of Scotland**	Quota	145	-	190	-	56	-	6	-	**397**
	Vb (EC), VI, XII, XIV	Catch	29	-	..	-	44	-	-	-	**74**
		Uptake %	20	-	..	-	79	-	-	-	**19**
	7	Quota	2,298	-	9,567	-	1,130	-	80	420	**13,495**
	VII	Catch	1,915	-	1,237	-	1,126	..	12	42	**4,332**
		Uptake %	83	-	13	-	100	n/a	14	10	**32**
Redfishes	**1 & 2 (Norwegian**	Quota	159	-	88	340	-	-	281	480	**1,348**
	waters)	Catch	159	-	66	224	-	-	266	471	**1,186**
	I, II (Norway)	Uptake %	100	-	75	66	-	-	95	98	**88**

Source: European Commission

TABLE 3.12 Quota, catch and uptake by EU Member States: 2016 (cont.)

Tonnes

Species	Area		UK	Denmark	France	Germany	Ireland	Netherlands	Spain	Other	Total
Redfishes (continued)	**5b (Faroese waters)**	Quota	10	-	31	455	-	-	-	4	**500**
	Vb (Faroes)	Catch	3	-	..	-	-	-	-	-	**3**
		Uptake %	30	-	1	-	-	-	-	-	**1**
	NAFO 3M	Quota	9	-	-	-	-	-	2,240	7,302	**9,551**
	3M (NAFO)	Catch	9	-	-	-	-	-	1,378	4,379	**5,766**
		Uptake %	99	-	-	-	-	-	62	60	**60**
Red Seabream	**6-8**	Quota	1	-	29	-	-	-	140	-	**170**
	VI, VII and VIII (EC and International)	Catch	1	-	31	-	..	-	129	..	**162**
		Uptake %	90	-	109	-	n/a	-	92	n/a	**95**
Roundnose and Roughead Grenadier	**5b, 6 & 7**	Quota	216	-	3,688	8	270	77	211	-	**4,470**
	Vb, VI, VII	Catch	5	-	438	-	-	-	190	-	**633**
		Uptake %	3	-	12	-	-	-	90	-	**14**
Saithe	**1 & 2 (Norwegian waters)**	Quota	325	-	278	1,271	-	-	51	588	**2,514**
	I, II (Norway)	Catch	287	4	225	934	6	-	26	572	**2,053**
		Uptake %	88	n/a	81	73	n/a	-	51	97	**82**
	North Sea	Quota	8,710	4,099	11,412	7,169	-	111	-	365	**31,866**
	IIa (EC), IV	Catch	8,574	4,083	11,092	6,313	-	111	-	336	**30,509**
		Uptake %	98	100	97	88	-	100	-	92	**96**
	West of Scotland	Quota	2,839	1	3,091	9	188	-	19	-	**6,146**
	Vb (EC), VI, XII, XIV	Catch	2,770	..	2,375	9	185	-	15	-	**5,353**
		Uptake %	98	89	77	100	98	-	80	-	**87**
	5b (Faroese waters)	Quota	846	-	1,812	222	-	60	-	60	**3,000**
	Vb (Faroes)	Catch	601	-	261	-	-	..	-	-	**862**
		Uptake %	71	-	14	-	-	1	-	-	**29**
	7	Quota	434	-	1,236	-	1,491	-	9	6	**3,176**
	VII, VIII, IX, X; COPACE 34.1.1(EC)	Catch	119	-	88	-	742	..	2	1	**951**
		Uptake %	27	-	7	-	50	n/a	20	8	**30**
Sandeels	**North Sea**	Quota	1,863	105,173	-	237	-	-	-	3,668	**110,942**
	IIa (EC), IIIa (EC), IV (EC)	Catch	-	28,327	-	-	-	-	-	3,536	**31,863**
		Uptake %	-	27	-	-	-	-	-	96	**29**
Skates and Rays	**North Sea**	Quota	721	11	46	52	-	237	-	228	**1,295**
	IIa (EC), IV (EC)	Catch	665	10	39	49	-	213	-	193	**1,171**
		Uptake %	92	92	86	96	-	90	-	85	**90**
	7d	Quota	145	-	631	-	-	5	-	87	**868**
	VIId	Catch	144	-	700	-	-	-	-	92	**936**
		Uptake %	100	-	111	-	-	-	-	105	**108**
	6 & 7	Quota	2,006	-	3,641	-	950	-	459	841	**7,897**
	VI (EC), VII (EC) (ex VIId)	Catch	2,008	-	3,680	-	981	-	470	830	**7,969**
		Uptake %	100	-	101	-	103	-	102	99	**101**
	8 & 9	Quota	1	-	1,233	-	-	-	925	1,058	**3,217**
	VIII (EC), IX (EC)	Catch	..	-	1,210	-	-	-	957	1,072	**3,239**
		Uptake %	1	-	98	-	-	-	103	101	**101**
Sole	**3abcd**	Quota	..	352	-	21	-	20	-	23	**415**
	IIIa, subdivisions 22-32 (EU)	Catch	1	294	-	18	-	16	-	15	**344**
		Uptake %	761	84	-	86	-	80	-	68	**83**
	North Sea	Quota	783	400	545	958	-	10,466	-	988	**14,139**
	II, IV	Catch	705	355	362	861	-	9,395	-	777	**12,455**
		Uptake %	90	89	66	90	-	90	-	79	**88**
	West of Scotland	Quota	11	-	-	-	46	-	-	-	**57**
	Vb (EC), VI, XII, XIV	Catch	2	-	-	-	31	-	-	-	**33**
		Uptake %	22	-	-	-	67	-	-	-	**58**
	7a	Quota	10	-	-	-	16	-	-	14	**40**
	VIIa	Catch	6	-	-	-	15	-	-	14	**35**
		Uptake %	58	-	-	-	94	-	-	102	**88**
	7d	Quota	476	-	2,125	-	-	-	-	1,060	**3,661**
	VIId	Catch	391	-	1,337	-	-	-	-	799	**2,528**
		Uptake %	82	-	63	-	-	-	-	75	**69**
	7e	Quota	646	-	340	-	-	-	-	47	**1,033**
	VIIe	Catch	622	-	245	-	-	-	-	46	**913**
		Uptake %	96	-	72	-	-	-	-	98	**88**
	7fg	Quota	179	-	74	-	23	-	-	550	**825**
	VIIf, g	Catch	174	-	72	-	21	-	-	563	**830**
		Uptake %	97	-	97	-	93	-	-	103	**101**
	7hjk	Quota	85	-	113	-	118	5	-	103	**424**
	VIIh, j, k	Catch	63	-	77	-	98	-	-	91	**329**
		Uptake %	74	-	68	-	83	-	-	89	**78**
Sprats	**North Sea**	Quota	2,150	225,447	2,907	6,113	-	1,994	-	14,707	**253,318**
	IIa (EC), IV (EC)	Catch	23	198,151	1	5,550	-	1,789	-	12,553	**218,066**
		Uptake %	1	88	..	91	-	90	-	85	**86**

Source: European Commission

TABLE 3.12 Quota, catch and uptake by EU Member States: 2016 (cont.)

Tonnes

Species	Area		UK	Denmark	France	Germany	Ireland	Netherlands	Spain	Other	Total
Sprats (continued)	**7de**	Quota	2,952	1,566	397	119	-	280	-	29	**5,343**
	VIId, e	Catch	2,867	185	7	49	-	143	-	-	**3,250**
		Uptake %	97	12	2	41	-	51	-	-	**61**
Spurdog	**North Sea**	Quota	-	-	-	-	-	-	-	-	**-**
	IIa (EC), IV (EC)	Catch	18	1	-	2	-	1	-	-	**23**
		Uptake %	n/a	n/a	-	n/a	-	n/a	-	-	**n/a**
	West Coast	Quota	-	-	-	-	-	-	-	-	**-**
	I, V, VI, VII, VIII, XII	Catch	13	-	-	-	-	-	..	-	**13**
	and XIV (EC and Int)	Uptake %	n/a	-	-	-	-	-	n/a	-	**n/a**
Turbot and Brill	**North Sea**	Quota	522	489	70	363	-	2,551	-	482	**4,477**
	IIa (EC), IV (EC)	Catch	545	488	46	362	-	2,738	-	514	**4,692**
		Uptake %	104	100	66	100	-	107	-	107	**105**
Tusk	**1, 2 & 14**	Quota	7	-	7	7	-	-	-	-	**20**
	I, II, XIV (EC	Catch	1	-	2	-	-	-	-	-	**3**
	and International)	Uptake %	15	-	34	-	-	-	-	-	**16**
	4 (EC waters)	Quota	107	71	49	21	-	-	-	7	**254**
	IV (EC and	Catch	41	3	5	2	-	-	-	..	**50**
	International)	Uptake %	38	4	9	9	-	-	-	..	**20**
	4 (Norwegian	Quota	4	163	-	3	-	-	-	-	**170**
	waters)	Catch	2	31	..	1	-	-	-	-	**34**
	IV (Norway S of 62°N)	Uptake %	47	19	n/a	32	-	-	-	-	**20**
	5-7	Quota	265	-	611	1	58	-	91	-	**1,025**
	V, VI, VII (EC and	Catch	52	-	195	-	2	1	82	-	**332**
	International)	Uptake %	19	-	32	-	3	n/a	90	-	**32**
Whiting	**North Sea**	Quota	9,473	721	1,617	112	-	601	-	66	**12,590**
	IIa (EC), IV	Catch	9,416	443	1,233	110	-	597	-	66	**11,865**
		Uptake %	99	61	76	98	-	99	-	99	**94**
	West of Scotland	Quota	122	-	7	1	93	-	1	-	**224**
	Vb (EC), VI, XII, XIV	Catch	121	-	5	-	87	-	-	-	**212**
		Uptake %	99	-	66	-	93	-	-	-	**94**
	7a	Quota	23	-	3	-	57	-	-	1	**84**
	VIIa	Catch	5	-	..	-	52	-	-	..	**57**
		Uptake %	22	-	1	-	91	-	-	35	**68**
	7b-k	Quota	1,502	-	13,959	-	8,116	625	-	398	**24,600**
	VII (ex VIIa)	Catch	1,139	-	9,065	-	7,749	583	-	331	**18,867**
		Uptake %	76	-	65	-	95	93	-	83	**77**
Other Species	**1 & 2 (Norwegian**	Quota	138	-	57	64	-	-	48	37	**344**
	waters)	Catch	93	-	15	21	-	-	39	-	**167**
	I, II (Norway)	Uptake %	68	-	26	32	-	-	81	-	**49**
	4 (Norwegian	Quota	2,934	4,470	197	779	-	74	-	46	**8,500**
	waters)	Catch	2,482	3,932	7	486	-	-	-	88	**6,995**
	IV (Norway S of 62°N)	Uptake %	85	88	3	62	-	-	-	192	**82**
	5b (Faroese waters)	Quota	403	-	289	108	-	-	-	-	**800**
	Vb (Faroes)	Catch	387	-	3	-	-	-	-	-	**390**
		Uptake %	96	-	1	-	-	-	-	-	**49**

Source: European Commission

4 Supplies, overseas trade and marketing

Introduction

In 2016, the UK imported 730 thousand tonnes of fish (excluding fish products), with a value of £3,073 million. It exported 441 thousand tonnes, leaving a trade gap of 290 thousand tonnes. Landed prices of fish rose by an average of 10 per cent on 2015, although the fish component of the retail price index fell by 2 per cent. Fishing accounted for 6.5 per cent of gross value added for agriculture, hunting, forestry and fishing, compared with 5.6 per cent in 2015.

This chapter brings together information on:

- Imports and exports of fish and fish products
- Household expenditure on fish and inflation of fish prices
- The contribution of fishing to GDP

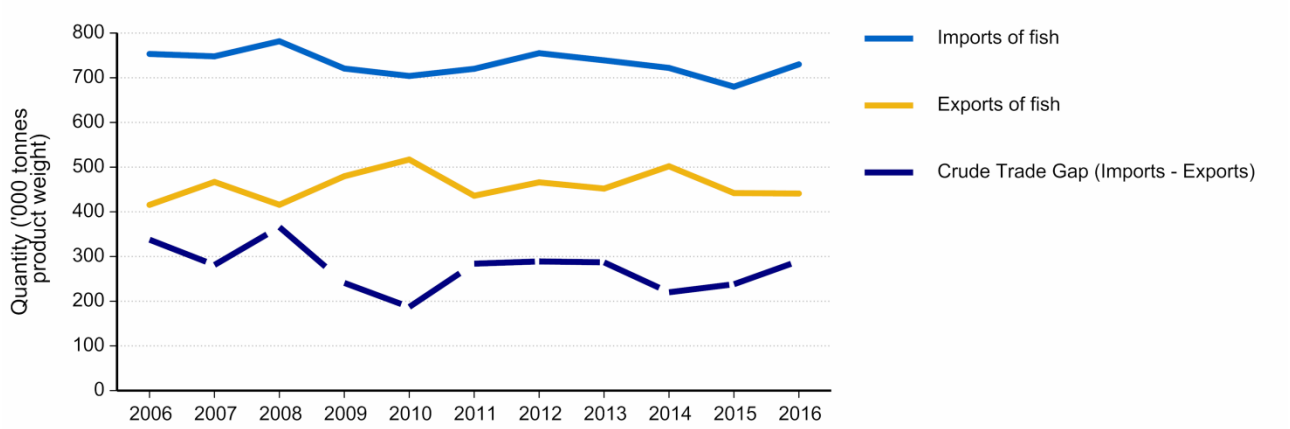
The data on imports, exports, household consumption and GDP include information on fish from freshwater fisheries and aquaculture, as well as from sea fisheries. This differs from the rest of the publication, which focuses exclusively on sea fisheries. Note that in this chapter, landings data are given in terms of landed weight for comparison with the trade data, which are shown in terms of actual product weight.

All tables presented here are available to download as spreadsheets from the MMO website. Supplementary tables showing more detail can also be found on the website.

Imports and Exports

The UK is a net importer of fish, with imports exceeding exports. In 2016, imports rose by 50 thousand tonnes while exports fell by 1 thousand tonnes. The crude trade gap (imports minus exports) therefore rose by 51 thousand tonnes (22 per cent) to 290 thousand tonnes.

Chart 4.1: International trade of fish: 2006 to 2016



In addition to imports from abroad, supplies of fish to the UK include aquaculture, catches from inland fisheries, and landings by UK vessels from sea fisheries. Data on aquaculture and catches from freshwater fisheries are not included in this publication and hence total UK supplies of fish are not estimated.

Landings by UK vessels into the UK (based on landed weight) rose by 24 thousand tonnes in 2016 (see Table 4.1). Adding this to the 51 thousand tonne increase in the crude trade gap results in an additional 75 thousand tonnes of fish available for use in 2016.

TABLE 4.1 Fish trade flows for the UK: 2006 to 2016

		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Imports [(a)]	('000 tonnes)	753	748	782	721	704	720	755	739	722	680 [R]	730
	(£ million)	1,921	1,994	2,210	2,177	2,255	2,559	2,570	2,757	2,738	2,672 [R]	3,073
Exports [(a)]	('000 tonnes)	416	467	416	480	517	436	466	452	502	442 [R]	441
	(£ million)	942	982	1,009	1,166	1,346	1,464	1,344	1,460	1,566	1,337	1,640
Crude trade gap	('000 tonnes)	**338**	**281**	**366**	**241**	**187**	**284**	**289**	**287**	**220**	**238**	**290**
Landings by UK vessels into the UK [(b) (c)]												
	('000 tonnes)	386	407	375	360	379	372	366	379	422	390	414
	(£ million)	492	532	517	520	548	621	568	549	615	553 [R]	689

(a) Excludes fish products.
(b) Landings are given in terms of landed weight equivalent (i.e. head on, gutted for most species).
(c) Landings include transhipments of mackerel.

More detailed landings data (based on live weight) are in Chapter 3.

Tables 4.2 and 4.3 present information on imports and exports by species. Note that while imports typically include landings into the UK by foreign-registered vessels, there may be cases where imports are less than the landings shown in Table 3.3; see Appendix 4 (UK fisheries statistics methodology) for further details.

There were 730 thousand tonnes of fish (excluding fish products) imported into the UK in 2016. This is up 7 per cent on the 680 thousand tonnes imported in 2015. Increases were seen across almost all species, in particular salmon (up 14 thousand tonnes). Total imports rise to 830 thousand tonnes when fish products, such as fish meal and oils, are included.

2016 exports of fish stood at 441 thousand tonnes - 1 thousand tonnes down on 2015 - rising to 499 thousand tonnes with the inclusion of fish products.

TABLE 4.2 Imports of fish, fish preparations, meals, flours and oils into the UK: 2012 to 2016 [a]

	Quantity ('000 tonnes)					Value (£ million)				
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
Fish (excluding Shellfish)										
Bass	8.3	9.5	6.8	8.5	8.5	34.8	34.9	28.5	35.5 R	38.5
Blue Whiting	22.5	5.1	..	..	..	6.4	1.1	..	0.1	0.1
Cod	101.5	116.3	116.4	115.4	120.6	395.2	400.4	410.0	440.1 R	491.2
Haddock	60.7	44.9	35.9	41.0	44.9	160.8	124.5	111.1	119.9 R	113.8
Hake	3.1	3.2	4.7	3.2	3.5	8.1	8.8	11.1	9.4	10.4
Halibut	1.6	1.5	1.3	1.0	1.0	8.3	8.3	7.2	6.1	6.8
Herring	20.0	12.0	11.9	9.4	10.2	24.2	17.2	15.2	15.1	15.4
Ling	1.3	1.1	1.2	0.9	1.5	2.1	1.6	1.2	1.3	2.1
Mackerel	49.0	29.9	33.2	19.0	19.0	77.9	57.5	53.2	38.9	42.9
Megrim	..	..	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3
Monks or Anglerfish	2.6	1.7	1.7	1.1	1.8	9.3	6.6	6.3	3.5	5.7
Plaice	5.3	4.6	4.2	4.4	4.3	16.6	13.6	12.9	12.4	12.6
Pollack	31.6	39.0	38.3	29.3	31.1	59.7	74.4	71.8	57.8	66.1
Saithe	3.3	2.7	3.2	2.0	2.9	10.0	8.1	9.5	6.6	9.2
Salmon [b]	69.9	74.5	78.3	71.8 R	86.3	292.8	379.0	393.1	345.8 R	490.1
Sardines	14.4	12.9	12.9	12.9 R	13.5	35.7	36.3	33.8	30.6	34.4
Sole	0.3	0.3	0.2	0.4	0.5	1.3	1.2	0.8	2.8	3.8
Trout [b]	6.9	8.6	11.4	10.4	12.3	38.6	45.5	60.8	55.4	66.2
Tuna	89.7	97.0	91.8	119.0	122.7	290.9	350.9	287.8	357.4 R	390.9
Whiting	0.6	1.7	3.3	2.6 R	3.9	0.7	1.3	2.6	2.2	3.3
Other Fish [c]	146.0	155.4	146.3	117.7 R	123.3	473.7	509.6	460.3	368.3 R	422.4
Total	**638.4**	**621.9**	**603.1**	**570.2** R	**611.9**	**1,947.2**	**2,080.7**	**1,977.2**	**1,909.5** R	**2,226.2**
Shellfish (Crustaceans and Molluscs)										
Crabs	2.6	2.5	3.9	2.2	2.8	15.3	17.3	23.3	18.4	19.9
Lobsters	2.6	2.6	2.3	3.0	2.7	19.7	23.4	23.4	35.9	37.6
Mussels	6.2	5.7	6.0	5.1	5.5	15.0	13.6	15.1	13.9 R	15.4
Nephrops	2.0	1.9	3.7	3.0	3.1	5.5	6.3	15.7	10.6 R	10.7
Scallops	1.5	1.9	2.1	2.4	3.7	15.9	20.8	24.4	27.6 R	41.4
Shrimps and Prawns	85.8	85.1	82.3	77.4	81.8	503.6	537.2	593.8	593.6 R	644.9
Squid	8.0	8.2	7.0	6.3	6.0	19.3	17.5	13.9	14.0	19.8
Other Crustaceans	2.0	2.6	3.6	3.0	2.3	10.6	17.7	27.8	23.0	20.9
Other Molluscs	5.4	7.0	7.9	8.0	10.5	17.9	22.4	23.2	25.1	36.3
Total	**116.2**	**117.5**	**118.8**	**110.3** R	**118.5**	**622.8**	**676.3**	**760.6**	**762.1** R	**847.0**
Total Imports of Fish	**754.5**	**739.4**	**721.9**	**680.4** R	**730.4**	**2,570.0**	**2,757.0**	**2,737.8**	**2,671.6** R	**3,073.2**
Fish Products										
Meals and Flours	74.3	66.1	71.1	63.4 R	77.6	72.7	77.5	77.7	70.5 R	97.9
Oils	26.8	16.0	13.3	29.0	22.5	38.8	30.1	28.5	41.1 R	47.9
Total	**101.1**	**82.1**	**84.4**	**92.4** R	**100.1**	**111.5**	**107.6**	**106.2**	**111.7** R	**145.9**
Total Imports (inc. fish products)	**855.7**	**821.5**	**806.3**	**772.8** R	**830.5**	**2,681.5**	**2,864.6**	**2,844.0**	**2,783.3** R	**3,219.0**

Source: H.M. Revenue and Customs

(a) 2016 data are provisional.

(b) Freshwater species.

(c) Includes other freshwater species.

Note: Additional data on UK imports by exporting country are available from the MMO website as supplementary Table 4.2a.

TABLE 4.3 Exports of fish, fish preparations, meals, flours and oils from the UK: 2012 to 2016 [a]

	Quantity ('000 tonnes)					Value (£ million)				
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
Fish (excluding Shellfish)										
Bass	0.5	0.4	0.4	0.4	0.3	2.4	2.8	3.0	2.6 R	3.1
Blue Whiting	26.7	18.7	4.4	1.8	2.7	11.9	6.1	1.2	0.6	1.0
Cod	20.2	16.7	15.5	16.0	17.2	55.3	55.6	52.7	53.1 R	59.0
Haddock	1.7	1.0	1.0	0.9	1.2	3.8	3.0	2.6	2.5	3.7
Hake	2.4	2.4	3.9	5.0 R	7.6	6.5	7.1	13.1	17.4 R	25.1
Halibut	0.9	0.5	0.5	0.4	0.4	3.2	2.1	2.0	1.5	1.3
Herring	59.8	52.9	63.5	64.8 R	44.1	46.0	36.9	40.7	35.6 R	38.4
Ling	2.3	2.7	2.3	2.0	2.1	4.6	6.0	4.7	4.2	4.7
Mackerel	75.0	80.8	120.3	80.3	83.8	96.3	99.7	128.5	67.7 R	81.1
Megrim	3.0	3.7	3.5	3.3	3.7	11.0	13.3	13.7	12.6	15.2
Monks or Anglerfish	2.0	1.8	2.8	3.1	4.2	12.5	9.7	14.2	15.9	24.4
Plaice	0.3	0.5	0.3	0.4	1.1	0.6	0.6	0.5	0.6	1.6
Pollack	3.0	3.9	3.9	3.6	2.0	9.5	11.8	10.4	7.6	6.0
Saithe	4.5	5.0	4.7	4.8	5.4	9.1	8.6	8.6	9.2	12.8
Salmon [b]	100.9	112.1	124.8	113.7 R	105.5	448.9	578.7	625.9	493.6 R	581.2
Sardines	8.6	4.5	3.9	4.5	7.6	10.3	8.8	7.1	7.6	9.4
Sole	1.1	1.0	0.9	0.6	0.9	8.4	7.3	7.2	4.8	7.8
Trout [b]	2.4	2.2	2.8	4.0	7.8	10.1	9.7	11.2	18.3	48.4
Tuna	6.7	5.4	5.1	5.3	5.9	19.5	17.9	18.7	19.2	22.7
Whiting	0.7	0.8	1.6	0.3	0.5	1.1	1.6	1.2	0.6	0.8
Other Fish [c]	48.8	46.9	51.5	45.7 R	47.0	134.4	122.4	134.7	120.5	134.7
Total	**371.4**	**363.8**	**417.6**	**361.2** R	**351.0**	**905.4**	**1,009.8**	**1,101.8**	**895.8** R	**1,082.3**
Shellfish (Crustaceans and Molluscs)										
Crabs	14.0	14.2	15.5	14.5	16.7	46.3	50.7	56.7	48.5 R	66.0
Lobsters	7.0	7.4	3.8	3.2	3.9	68.8	74.8	40.5	35.2	47.3
Mussels	13.8	8.8	4.8	5.2	3.6	11.8	9.4	5.3	4.2	3.3
Nephrops	11.1	9.2	14.8	13.0 R	13.9	70.4	58.4	107.3	93.2 R	113.6
Scallops	13.6	11.7	11.1	11.7	12.9	89.8	93.4	91.7	100.2	127.9
Shrimps and Prawns	13.7	16.1	13.5	11.7	12.6	73.3	85.3	75.5	71.4 R	86.7
Squid	2.3	3.0	2.9	3.3	3.1	7.1	9.0	10.2	14.5	13.8
Other Crustaceans	1.9	3.7	2.9	1.9	2.3	10.3	15.2	16.5	13.3	17.9
Other Molluscs	17.2	14.2	14.9	16.4	20.4	60.8	54.4	60.7	60.4	81.5
Total	**94.5**	**88.3**	**84.2**	**80.8** R	**89.5**	**438.5**	**450.5**	**464.5**	**440.9** R	**558.0**
Total Exports of Fish	**465.9**	**452.1**	**501.8**	**442.0** R	**440.5**	**1,343.9**	**1,460.3**	**1,566.3**	**1,336.7** R	**1,640.3**
Fish Products										
Meals and Flours	15.9	24.1	37.9	45.4	47.2	18.7	30.7	45.2	55.3	60.7
Oils	8.5	8.1	6.4	10.8 R	10.9	13.9	20.0	17.0	19.3 R	26.4
Total	**24.4**	**32.2**	**44.3**	**56.2** R	**58.0**	**32.6**	**50.8**	**62.1**	**74.6** R	**87.2**
Total Exports (inc. fish products)	**490.3**	**484.4**	**546.1**	**498.3** R	**498.6**	**1,376.5**	**1,511.1**	**1,628.4**	**1,411.3** R	**1,727.5**

Source: H.M. Revenue and Customs

(a) 2016 data are provisional.

(b) Freshwater species.

(c) Includes other freshwater species.

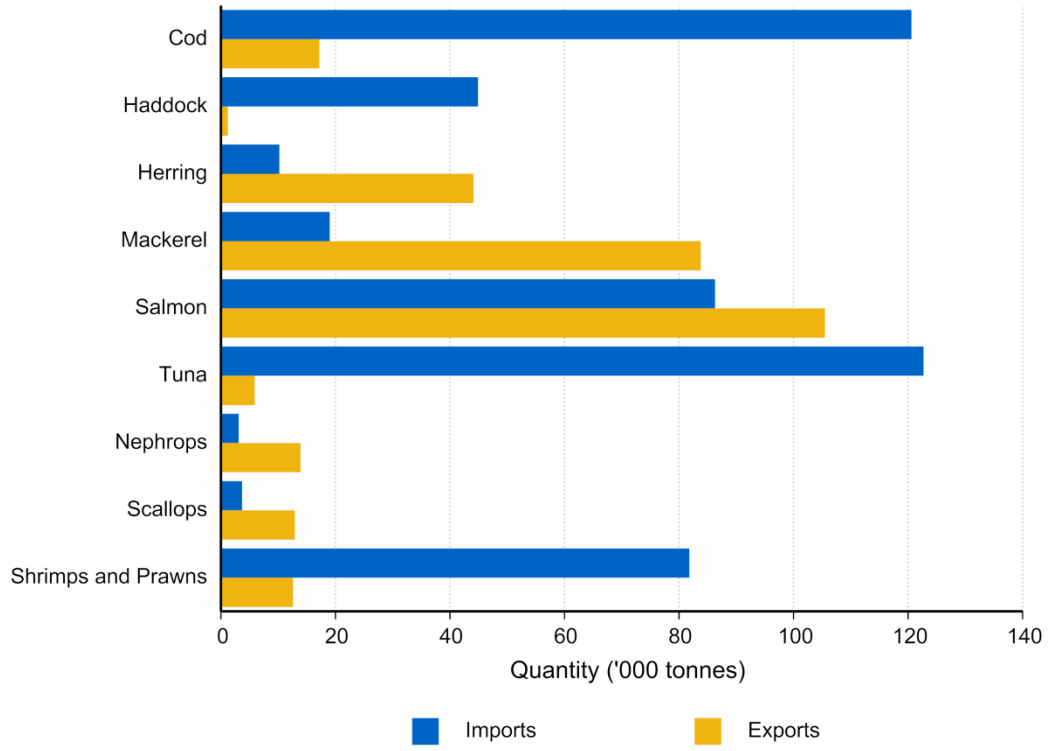
Note: Additional data on UK exports by importing country are available from the MMO website as supplementary Table 4.3a.

Imports and exports by species

Fish (excluding shellfish) accounted for 74 per cent of fish imports (including fish products) by weight in 2016, a total of 612 thousand tonnes. Shellfish (molluscs and crustaceans) accounted for 14 per cent of imports by weight and 26 per cent by value. The share of fish products remains at 12 per cent. These are relatively low priced and so account for just 5 per cent of the value of all imports.

The UK exported 351 thousand tonnes of fish (excluding shellfish) in 2016, down by 10 thousand tonnes since 2015. In addition, 90 thousand tonnes of shellfish were exported from the UK. Compared with total exports, the share of fish (excluding shellfish) has fallen by 5 percentage points since 2012 and the share of shellfish has fallen by 1 percentage point. However, exports of fish products have more than doubled and their share has risen from 5 to 12 per cent over the last four years.

Chart 4.2: UK imports and exports by key species: 2016



In 2016, tuna remained the highest imported fish by weight - 123 thousand tonnes, a rise of more than a third in four years – followed by cod at 121 thousand tonnes. Other key imported species were salmon (86 thousand tonnes) and shrimps and prawns (82 thousand tonnes).

Exports were highest for salmon at 106 thousand tonnes, albeit down from 125 thousand tonnes in 2014. This was followed by mackerel, with 84 thousand tonnes exported in 2016. This is lower than the 120 thousand tonnes exported in 2014, which coincided with the peak in mackerel landings arising from increased quotas. 44 thousand tonnes of herring were also exported.

Cod

The UK is a net importer of cod. Imports of cod in 2016 stood at 121 thousand tonnes, up by 5 thousand tonnes in the year, while 17 thousand tonnes (landed weight) were exported. Landings of cod by UK vessels into the UK were relatively small at 16 thousand tonnes in 2016, although this represented a 3 thousand tonne increase on 2015. The rise in imports and landings has led to the amount available for domestic use increasing to 119 thousand tonnes, compared with, say, 79 thousand tonnes in 2011 (as reported in Sea Fisheries Statistics 2015). Excluded from these figures is a small but growing amount of cod sourced from UK aquaculture.

TABLE 4.4a Balance sheet for cod for the UK: 2012 to 2016

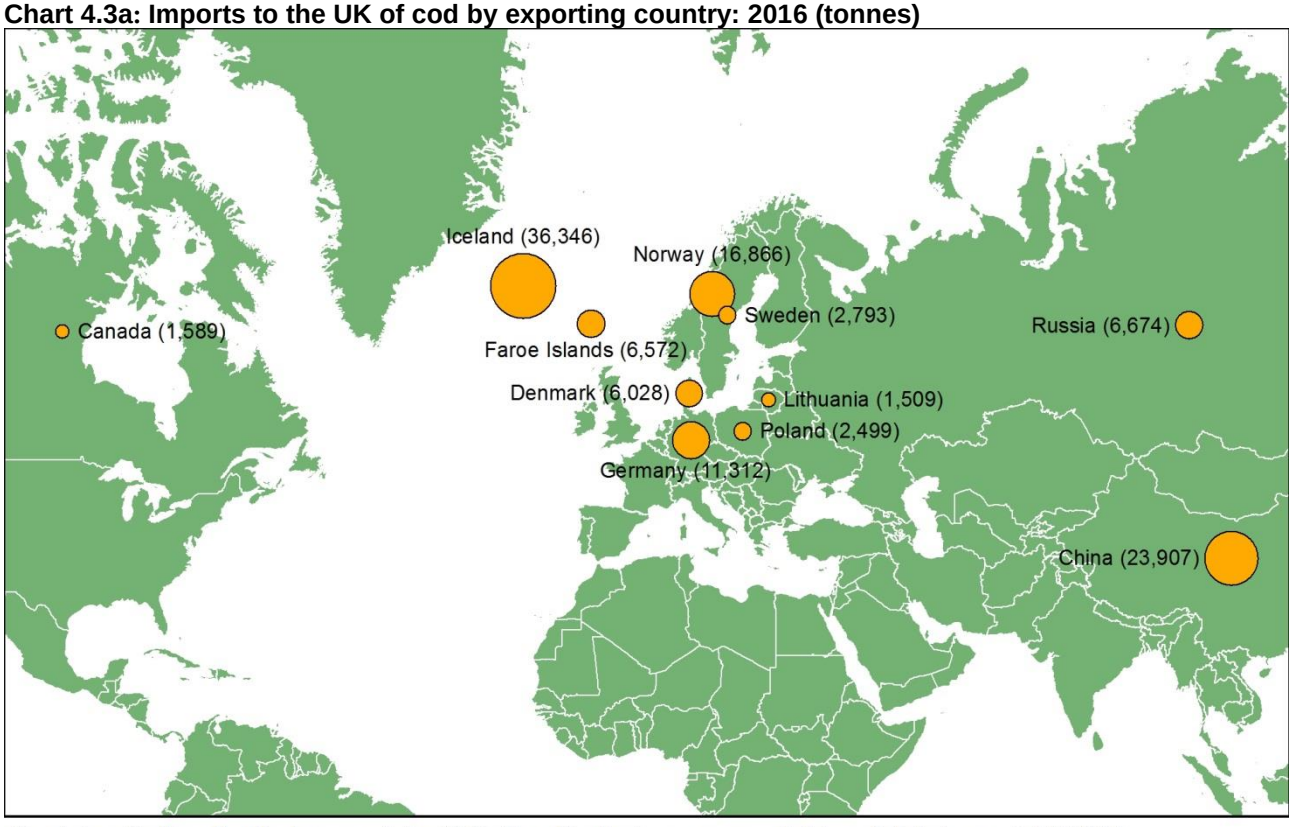
	Quantity ('000 tonnes)					Value (£ million)				
	2012	**2013**	**2014**	**2015**	**2016**	**2012**	**2013**	**2014**	**2015**	**2016**
Landings by UK vessels into the UK [(a)]	10.9	11.2	12.0	13.2	16.0	24.9	25.8	27.8	29.5	38.0
Imports [(b)]	101.5	116.3	116.4	115.4	120.6	395.2	400.4	410.0	440.1 [R]	491.2
Total supplies [(c)]	**112.4**	**127.5**	**128.4**	**128.5** [R]	**136.6**	**420.2**	**426.2**	**437.8**	**469.7** [R]	**529.3**
Exports [(b)]	20.2	16.7	15.5	16.0	17.2	55.3	55.6	52.7	53.1 [R]	59.0
Total available for domestic use [(c)]	**92.2**	**110.9**	**112.9**	**112.5**	**119.4**	**364.8**	**370.5**	**385.2**	**416.6**	**470.3**

Source: H.M. Revenue and Customs and Fisheries Administrations in the UK

(a) Landings are given in terms of landed weight.
(b) Excludes fish products.
(c) Excludes sources of fish other than imports and landings into the UK by UK vessels from sea fisheries.

An increasing share of cod imports are sourced from Iceland (36 thousand tonnes or 30 per cent). The second largest exporters of cod to the UK were China (24 thousand tonnes) and Norway (17 thousand tonnes). Imports from EU member states accounted for just over a fifth of all cod imports into the UK in 2016.

Chart 4.3a: Imports to the UK of cod by exporting country: 2016 (tonnes)



Note: Only countries from which the UK imported more than 1,000 tonnes of cod are shown.

Haddock

As with cod, the UK is heavily reliant on imports of haddock to meet consumer demand. Imports accounted for 61 per cent of the supply, although this is lower than the 88 per cent for cod. Very little is exported. In 2016, the amount available for domestic use was 73 thousand tonnes.

TABLE 4.4b Balance sheet for haddock for the UK: 2012 to 2016

	Quantity ('000 tonnes)					Value (£ million)				
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
Landings by UK vessels into the UK [a]	30.5	34.5	31.5	28.6	29.1	35.7	43.5	49.3	44.2	43.9
Imports [b]	60.7	44.9	35.9	41.0	44.9	160.8	124.5	111.1	119.9 R	113.8
Total supplies [c]	**91.2**	**79.4**	**67.4**	**69.6**	**74.0**	**196.6**	**168.0**	**160.4**	**164.1 R**	**157.7**
Exports [b]	1.7	1.0	1.0	0.9	1.2	3.8	3.0	2.6	2.5	3.7
Total available for domestic use [c]	**89.5**	**78.4**	**66.4**	**68.7**	**72.8**	**192.8**	**165.0**	**157.9**	**161.6**	**154.0**

Source: H.M. Revenue and Customs and Fisheries Administrations in the UK

(a) Landings are given in terms of landed weight.
(b) Excludes fish products.
(c) Excludes sources of fish other than imports and landings into the UK by UK vessels from sea fisheries.

In 2016, 54 per cent of all haddock imported into the UK came from Norway and Iceland (16 and 8 thousand tonnes respectively). The next largest was China, which exported 5,500 tonnes of haddock to the UK.

Chart 4.3b: Imports to the UK of haddock by exporting country: 2016 (tonnes)

Note: Only countries from which the UK imported more than 1,000 tonnes of haddock are shown.

Shrimps and prawns

UK vessels land only small amounts of shrimps and prawns into the UK: 800 tonnes in 2016. The vast majority of shrimps and prawns available for domestic use are imported. In 2016, 82 thousand tonnes of shrimps and prawns were imported into the UK, although 13 thousand tonnes are then exported.

TABLE 4.4c Balance sheet for shrimps and prawns for the UK: 2012 to 2016

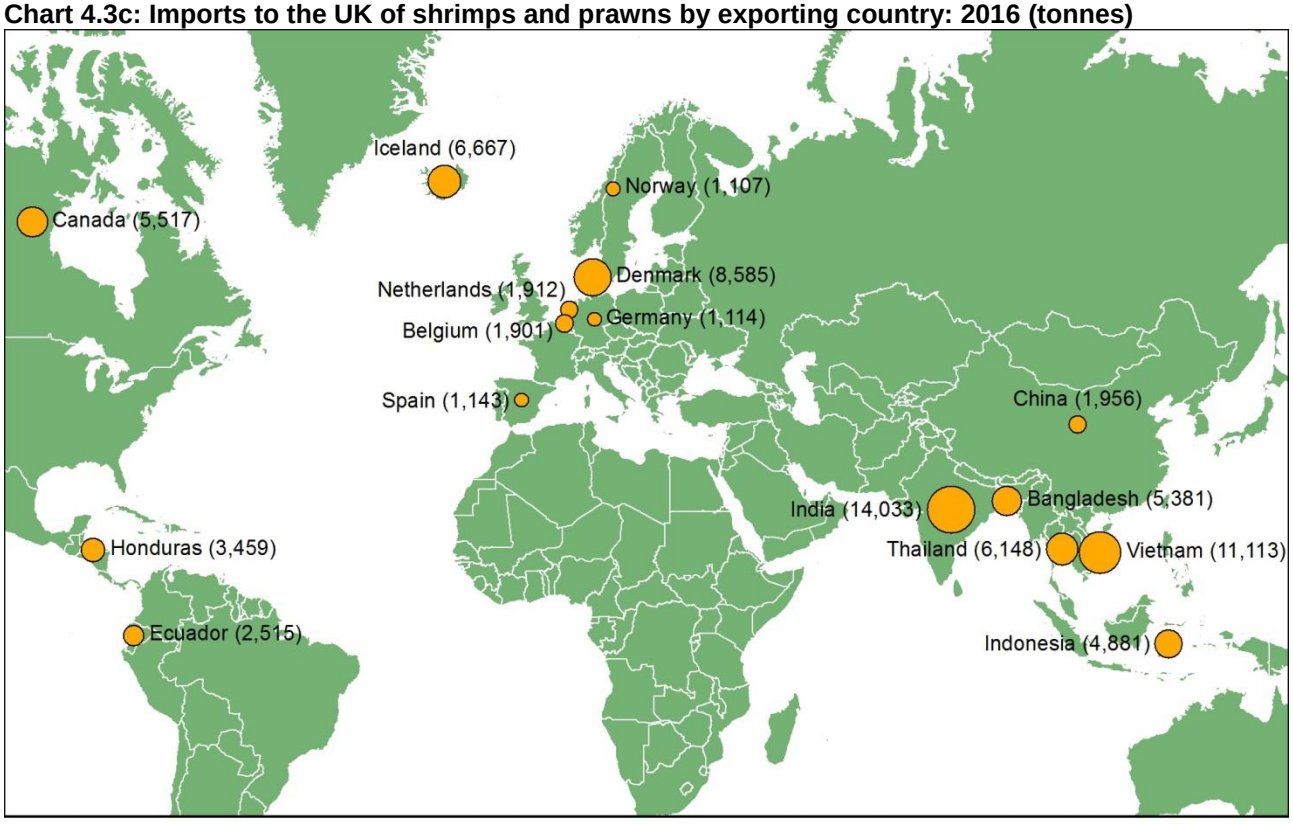
	Quantity ('000 tonnes)					Value (£ million)				
	2012	**2013**	**2014**	**2015**	**2016**	**2012**	**2013**	**2014**	**2015**	**2016**
Landings by UK vessels into the UK [(a)]	1.0	0.9	0.6	0.3	0.8	2.4	2.4	1.4	0.8	3.0
Imports [(b)]	85.8	85.1	82.3	77.4	81.8	503.6	537.2	593.8	593.6 R	644.9
Total supplies [(c)]	**86.7**	**86.0**	**82.9**	**77.7**	**82.6**	**506.0**	**539.6**	**595.2**	**594.4 R**	**647.9**
Exports [(b)]	13.7	16.1	13.5	11.7	12.6	73.3	85.3	75.5	71.4 R	86.7
Total available for domestic use [(c)]	**73.0**	**69.9**	**69.5**	**66.0**	**70.0**	**432.7**	**454.3**	**519.7**	**523.0**	**561.2**

Source: H.M. Revenue and Customs and Fisheries Administrations in the UK

(a) Landings are given in terms of landed weight.
(b) Excludes fish products.
(c) Excludes sources of fish other than imports and landings into the UK by UK vessels from sea fisheries.

Over half the shrimps and prawns imported into the UK were from Asia. In 2016, the largest exporters of shrimps and prawns to the UK were India (14 thousand tonnes) and Vietnam (11 thousand tonnes). Imports from Canada fell from 10 thousand tonnes in 2015 to 6 thousand tonnes in 2016.

Chart 4.3c: Imports to the UK of shrimps and prawns by exporting country: 2016 (tonnes)



Note: Only countries from which the UK imported more than 1,000 tonnes of shrimps and prawns are shown.

Tuna

Virtually all tuna available for use in the UK is from abroad. In 2016, the UK imported 123 thousand tonnes of tuna, a 37 per cent increase since 2012, of which 6 thousand tonnes were re-exported. This left 117 thousand tonnes available for domestic use, which is slightly lower than the 119 thousand tonnes available for cod.

TABLE 4.4d Balance sheet for tuna for the UK: 2012 to 2016

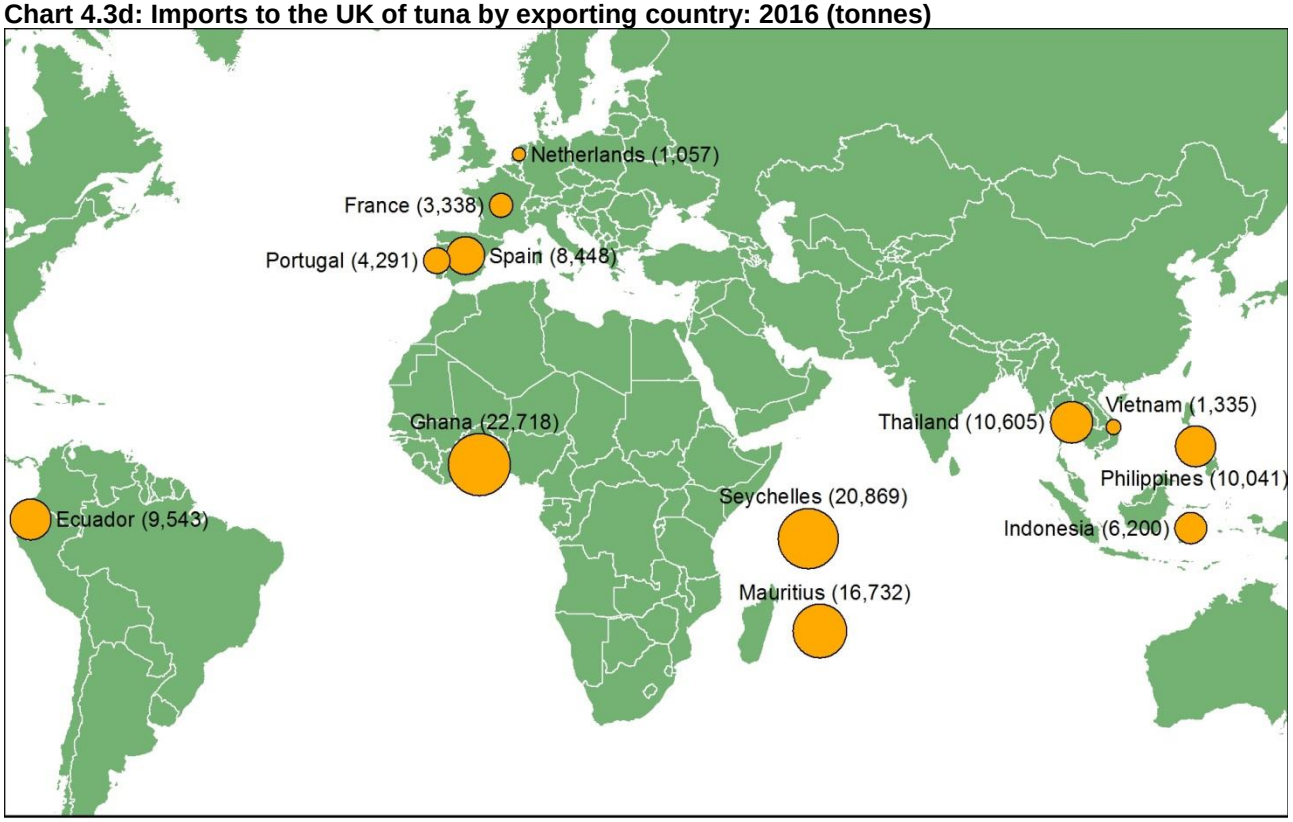
	Quantity ('000 tonnes)					Value (£ million)				
	2012	**2013**	**2014**	**2015**	**2016**	**2012**	**2013**	**2014**	**2015**	**2016**
Landings by UK vessels into the UK [(a)]	..	..	..	..	..	..	..	..	..	..
Imports [(b)]	89.7	97.0	91.8	119.0	122.7	290.9	350.9	287.8	357.4 [R]	390.9
Total supplies [(c)]	**89.7**	**97.0**	**91.8**	**119.0**	**122.7**	**290.9**	**350.9**	**287.8**	**357.4** [R]	**390.9**
Exports [(b)]	6.7	5.4	5.1	5.3	5.9	19.5	17.9	18.7	19.2	22.7
Total available for domestic use [(c)]	**83.0**	**91.6**	**86.7**	**113.6** [R]	**116.8**	**271.3**	**332.9**	**269.1**	**338.2** [R]	**368.3**

Source: H.M. Revenue and Customs and Fisheries Administrations in the UK

(a) Landings are given in terms of landed weight.
(b) Excludes fish products.
(c) Excludes sources of fish other than imports and landings into the UK by UK vessels from sea fisheries.

In 2016, the largest tuna exporters to the UK were Ghana – up from 8 thousand tonnes in 2014 (as reported in last year's publication) to 23 thousand tonnes in 2016, overtaking the Seychelles (21 thousand tonnes) and Mauritius (17 thousand tonnes).

Chart 4.3d: Imports to the UK of tuna by exporting country: 2016 (tonnes)



Note: Only countries from which the UK imported more than 1,000 tonnes of tuna are shown.

Mackerel

The UK is a net exporter of mackerel. UK vessels landed 104 thousand tonnes of mackerel into the UK in 2016. This was a decrease of 18 per cent on 2014, probably a result of mackerel quotas falling from their high point of 2014. Imports remained at 19 thousand tonnes while exports grew by 4 thousand tonnes to 84 thousand tonnes. The amount available for domestic use rose to 39 thousand tonnes. This means that just under a third of the supply of mackerel remains in the UK.

TABLE 4.4e Balance sheet for mackerel for the UK: 2012 to 2016

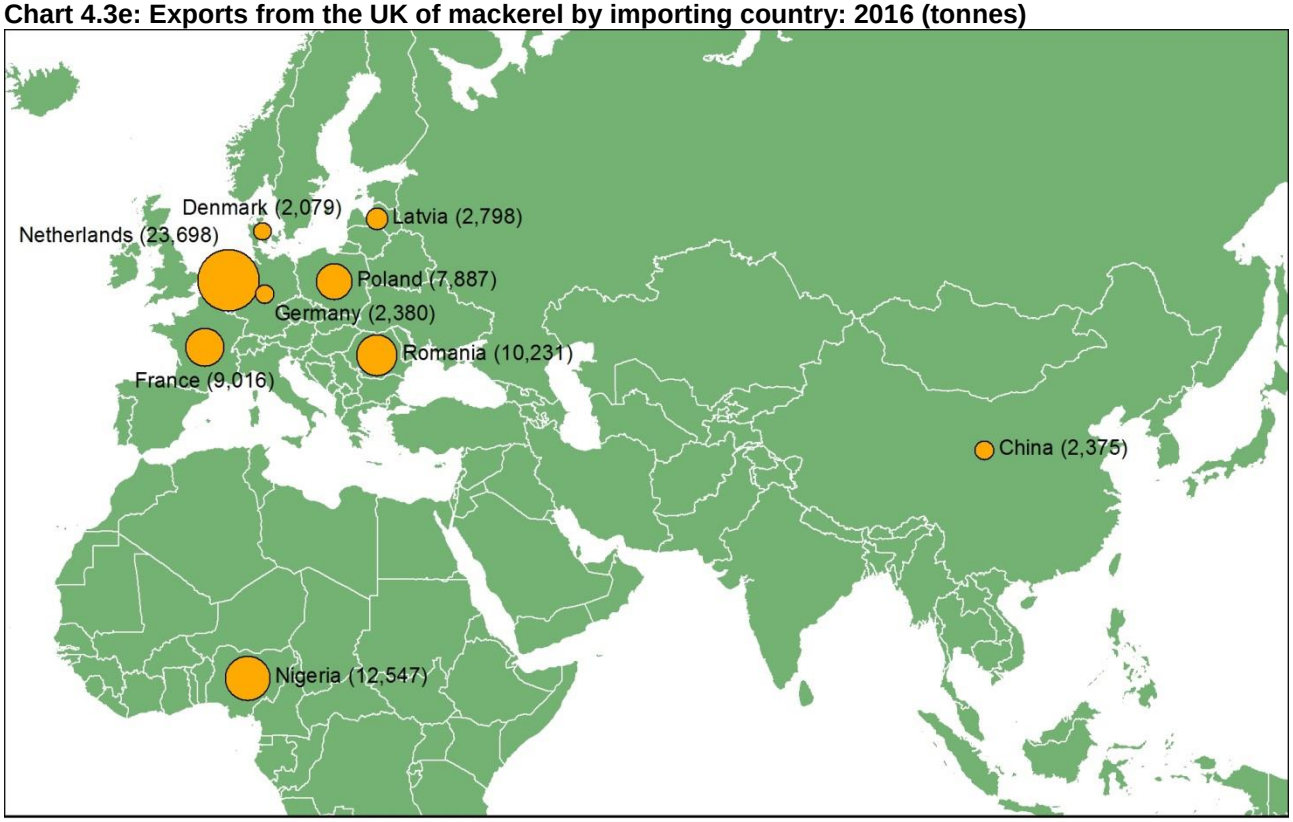
	Quantity ('000 tonnes)					Value (£ million)				
	2012	**2013**	**2014**	**2015**	**2016**	**2012**	**2013**	**2014**	**2015**	**2016**
Landings by UK vessels into the UK [(a)]	67.8	78.2	126.2	94.8	103.9	63.8	70.1	104.1	60.6	88.8
Imports [(b)]	49.0	29.9	33.2	19.0	19.0	77.9	57.5	53.2	38.9	42.9
Total supplies [(c)]	**116.8**	**108.1**	**159.4**	**113.8**	**122.9**	**141.7**	**127.6**	**157.3**	**99.4** [R]	**131.7**
Exports [(b)]	75.0	80.8	120.3	80.3	83.8	96.3	99.7	128.5	67.7 [R]	81.1
Total available for domestic use [(c)]	**41.8**	**27.3**	**39.1**	**33.6** [R]	**39.1**	**45.4**	**27.8**	**28.8**	**31.7**	**50.6**

Source: H.M. Revenue and Customs and Fisheries Administrations in the UK

(a) Landings are given in terms of landed weight.
(b) Excludes fish products.
(c) Excludes sources of fish other than imports and landings into the UK by UK vessels from sea fisheries.

The largest share of mackerel exports in 2016 went to the Netherlands (24 thousand tonnes), partly for Dutch consumption but also for processing for African customers. Nigeria received a further 13 thousand tonnes and Romania 10 thousand tonnes. UK exports to Russia had stood at 11 thousand tonnes in 2014 but are now at zero following the embargo on exports.

Chart 4.3e: Exports from the UK of mackerel by importing country: 2016 (tonnes)



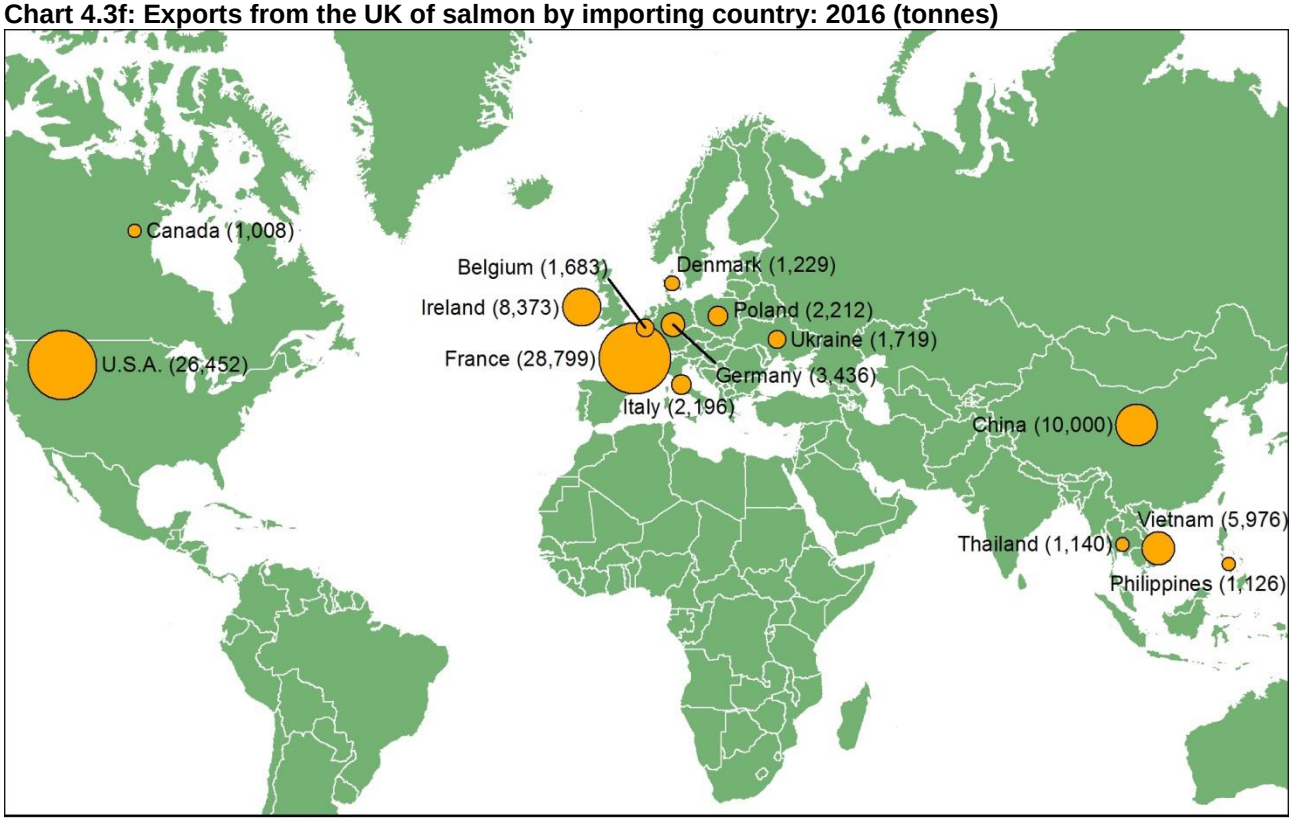
Note: Only countries to which the UK exported more than 1,000 tonnes of mackerel are shown.

Salmon

In 2016, the UK exported 106 thousand tonnes of salmon. This freshwater species is sourced from UK aquaculture and inland fisheries, as well as from imports. The UK imported 86 thousand tonnes of salmon from abroad in 2016, making the UK a net exporter.

In 2016, almost half of all salmon exports went to EU member states, in particular France, which imported 29 thousand tonnes. The USA was the second largest importer (26 thousand tonnes), followed by China (10 thousand tonnes).

Chart 4.3f: Exports from the UK of salmon by importing country: 2016 (tonnes)



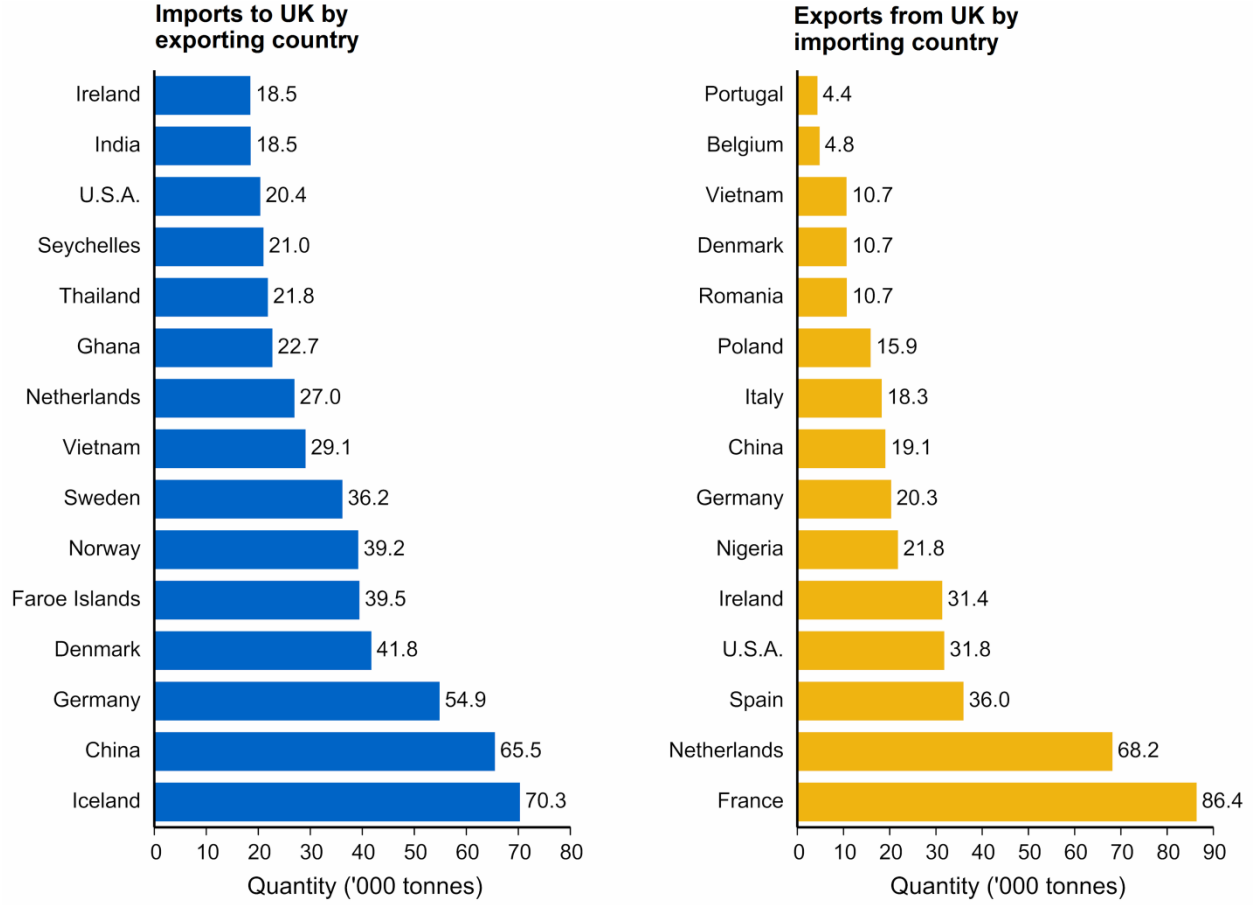
Note: Only countries to which the UK exported more than 1,000 tonnes of salmon are shown.

Imports and exports by country

The largest exporters to the UK in 2016 were Iceland (70 thousand tonnes) and China (66 thousand tonnes). They were followed by Germany (55 thousand tonnes), Denmark (42 thousand tonnes) and the Faroe Islands and Norway (39 thousand tonnes each).

The UK exported the largest amounts to France (86 thousand tonnes), the Netherlands (68 thousand tonnes), Spain (36 thousand tonnes), the USA (32 thousand tonnes) and Ireland (31 thousand tonnes).

Chart 4.4: Imports and exports by country: 2016



Household consumption and inflation

Household consumption of fish rose by 2 per cent to 490 thousand tonnes in 2015. Consumer expenditure on fish rose by 5 per cent to £4.5 billion. Household expenditure on fish as a proportion of overall expenditure on food rose from 5.3 per cent in 2014 to 5.6 per cent in 2015.

TABLE 4.5 Household consumption and inflation: 2006 to 2016

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Household consumption											
('000 tonnes)	519	515	510	501	483	472	467	481	479	490	nd
Population ('000 persons) [(a)]	58,603	59,737	60,816	60,907	61,464	61,528	61,946	63,421	63,879	64,188	nd
Consumers expenditure											
on fish (£ million)	3,410	3,599	3,650	3,711	3,742	3,866	3,998	4,271	4,309	4,512	nd
on food (£ million) [(b)]	74,193	77,716	67,635	70,143	72,587	73,744	77,523	81,291	80,669	79,964	nd
Fish as a % of food [(b)]	*4.6%*	*4.6%*	*5.4%*	*5.3%*	*5.2%*	*5.2%*	*5.2%*	*5.3%*	*5.3%*	*5.6%*	*nd*
Landed Price Index [(c)]	134.4	136.2	141.1	141.7	152.2	163.7	153.9	146.9	142.7	150.2	165.2
Retail Price Index [(d)]	108.5	115.7	123.9	130.3	138.2	151.0	157.4	163.4	168.2	163.2	159.9
Consumer Price Index [(e)]	111.4	120.8	126.8	131.5	140.1	153.0	158.5	163.6	167.8	161.9	158.2

Source: Fisheries Administrations in the UK, Expenditure and Food Survey, Office for National Statistics

(a) The population estimates have been updated to be consistent with the Living Costs and Food Survey figures, which
(b) Including non-alcoholic beverages.

(c) The landed price index has been calculated on an annual basis with 2000 = 100.
(d) The fish component of the RPI which includes canned and processed fish. The index has been re-based such that 2000 = 100.
(e) The fish component of the CPI which includes canned and processed fish. The index has been re-based such that 2000 = 100.

Note: Additional data on household purchases are available from the MMO website as supplementary Tables 4.5a and 4.5b.

The landed price index (LPI) measures the average change in the prices of fish landed by UK vessels into the UK at first sale. It provides a measure of domestic inflation in the price of fish landed by UK vessels into the UK. The LPI rose by 10 per cent in 2016.

The consumer price index (CPI) measures the average change in the prices of goods and services bought for the purpose of consumption in the UK. It includes a component for prices of fish, based on a 'basket' of six items: fresh white fish fillets, fresh salmon fillets, frozen prawns, canned tuna, fish fingers, and frozen breaded/battered white fish. The retail price index (RPI) is a similar inflation measure, calculated according to a different formula (see Appendix 4, UK fisheries statistics methodology). The RPI uses the same 'basket' of items for fish.

In 2016, the fish components of the RPI and CPI each fell by 2 per cent compared with 2015.

GDP for fishing

The gross value added (GVA) for fishing has fluctuated in recent years. GVA for fishing now stands at £682 million, an increase of 12 per cent in the year.

There has been some fluctuation in the GVA in the wider agriculture, forestry and fishing sector over the past decade, with fishing forming 6.5 per cent of GVA in this sector in 2016, the highest in over a decade.

UK gross domestic product increased to £1,414 billion in 2008, falling in 2009 during the height of the UK recession to £1,382 billion before steadily climbing to its 2016 value of £1,727 billion.

TABLE 4.6 GDP for fishing: 2006 to 2016

£ million (unless otherwise specified)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
GDP for Fishing [(a)(b)]											
Current price gross value added at basic prices (KK37)	465	481	468	472	582	489	506	529	615	610	682
Output index (chain volume measures) (L2KO) (2013=100)	92.7	99.5	94.6	96.8	100.0	100.5	100.3	100.0	113.5	113.7	113.6
GDP for Agriculture, Forestry and Fishing [(b)]											
Current price gross value added at basic prices (KKD5)	8,123	8,658	9,859	8,337	10,332	9,858	9,973	11,093	10,998	10,835	10,552
Output index (chain volume measures) (L2KL) (2013=100)	100.4	96.7	103.4	97.1	96.5	107.1	99.3	100.0	113.9	115.3	111.4
GDP at Market Prices [(b)]											
Current price GDP at market prices (KKP5) (£ billion)	1,311	1,378	1,414	1,382	1,415	1,452	1,496	1,552	1,624	1,664	1,727
Chain volume measures index (YBEZ) (2013=100)	96.0	98.5	97.9	93.6	95.4	96.9	98.1	100.0	103.1	105.3	107.2
Percentage contribution of GVA from fishing to GVA for agriculture, hunting, forestry and fishing											
Current prices (%)	*5.7%*	*5.6%*	*4.7%*	*5.7%*	*5.6%*	*5.0%*	*5.1%*	*4.8%*	*5.6%*	*5.6%*	*6.5%*

Source: Office for National Statistics

(a) GDP for fishing includes landings abroad and aquaculture, according to the KK37 index.

(b) GDP figures compiled in line with ESA2010 since September 2014. All values have been recalculated since the last publication.

5 Main stocks and their level of exploitation

Commentary provided by Dr Carl M. O'Brien CBE, Defra Chief Fisheries Science Adviser

The management of stocks

Fisheries are managed using a Total Allowable Catch or TAC (corresponding to a particular harvesting rate), and technical measures (mainly mesh sizes and minimum landing sizes, but sometimes closed areas, which determine the smallest fish that can be caught and landed) based on scientific advice.

In the EU, the TAC is set each year by the Council of Ministers following negotiations on catch options that are provided by the Advisory Committee (ACOM) of the International Council for the Exploration of the Sea (ICES), an independent scientific body. For the main North Sea stocks these options take into account the terms of a management agreement between the EU and Norway. Once a TAC is agreed for each stock and fishing area, it is allocated as quotas to Member States in accordance with fixed percentages based on historic fishing rights.

In past years, some seriously depleted stocks have become the subject of emergency measures and recovery plan proposals. Since 2003, the TAC and fishing mortality for some of these stocks have been linked to effort control measures that restrict the number of fishing days at sea per annum permitted for fleets capturing recovery species.

Scientific assessment and advice

ICES advice is based on stock assessments carried out at international working groups, where fishery scientists from the UK and the other nations compile fisheries data, biological data and survey data for use in fisheries science models. The age structure of a stock (the relative proportion of the different age groups) is largely determined by the fishing rate and by the numbers of young fish that enter the stock each year. When information on age structure is combined with data on landings, fishing effort, and the results of standardised stock surveys carried out by research vessels, the models are able to estimate the historical trend in fishing rate and stock abundance, up to the last full year of data. The assessment is then used to forecast the expected catch in an upcoming TAC year for a range of fishing rate options, taking into account the number of young fish that are expected to enter the stock, based either on survey data, or a recent historic average.

This chapter summarises the present state of the main stocks based on advice from ACOM released during 2016, which evaluated stock assessments using fisheries data for years up to and including 2015, and survey data up to and including 2016. The 2016 ACOM advice formed the basis for the EU proposals that led to the TACs and other measures agreed for 2017 by the EU Council of Ministers.

Details are contained within Council Regulation (EU) No 2017/127 of 20 January 2017 fixing for 2017 the fishing opportunities for certain fish stocks and groups of fish stocks, applicable in Union waters and, for Union vessels, in certain non-Union waters. Subsequently, further details are contained within Council Regulation (EU) No 2017/595 of 27 March 2017 amending Regulation (EU) No 2017/127. Additional changes may be made during 2017.

The fisheries zones used to base ICES stock assessments on are sometimes different from those used to allocate TACs. Table 5.1 below shows the generic title of each fishing zone and the specific areas included for ICES stock assessments and EU TAC allocations.

TABLE 5.1 Fishing areas used for ICES stock assessments and EU TAC allocations

Species	Title	Fishing areas included in: ICES Stock Assessments	Fishing areas included in: EU TAC/Quota allocations
Cod	North Sea	IV, VIId, IIIa	IIa (EC), IV [(a)]
	West of Scotland	VIa	Vb (EC), VIa
	Irish Sea	VIIa	VIIa
	Celtic Sea	VIIe-k	VII (ex VIIa, VIId), VIII, IX, X; CECAF 34.1.1 (EC)
Haddock	North Sea, Skagerrak and West of Scotland	IV, IIIa, VIa	IIa (EC), IV Vb (EC), VIa
Plaice	North Sea	IV	IIa (EC), IV
	Irish Sea	VIIa	VIIa
Sole	North Sea	IV	II, IV
	Irish Sea	VIIa	VIIa
	Eastern Channel	VIId	VIId
	Western Channel	VIIe	VIIe
Herring	North Sea	IV, VIId, IIIa	IV (EC and Norway North of 53º 30'N) [(a)]
Mackerel	North East Atlantic	All ICES sub-areas	II (ex EC), Vb (EC), VI, VII, VIIIabde, XII, XIV [(a)]

Source: ICES and the European Commission

(a) Only largest stock shown. TACs have been set for other fishing areas covered by the stock assessment.

Summary stock presentation

For the main fish stocks, a summary of ICES data and assessments, where available, has been provided. These comprise four charts (a to d) showing total removals or landings, fishing mortality rates (F), recruitment and spawning stock biomass (SSB) since 1996 and exceptionally, since 1995. In the latter cases, charts have not been updated since the last year for which stock status was assessed; as is the case for Irish Sea sole. The data are official statistics and not subject to National Statistics accreditation. ICES' stock assessments since 2006 for each of these fisheries are also shown, with the exception of the recently combined stock North Sea, Skagerrak and West of Scotland haddock whose assessments begin in 2014. The location of the relevant areas for each stock is shown in Appendix 3.

It is important to note that the figures shown are, for each stock, the time series of estimates of abundance and fishing mortality provided by ICES in 2016.These are based on fishery and survey data collected up to the most recent year. unless otherwise commented upon in the narrative provided.

Total removals or landings - Chart a

Total removals equals total reported fish landings plus an estimate for discards and may include estimates of non-attributive losses. Landings are used where total removal figures are not available and charts are headed accordingly.

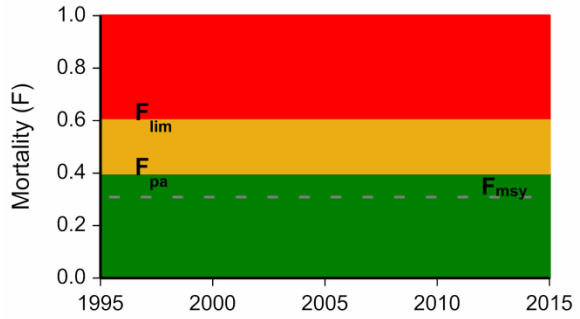
Fishing Mortality (F) - Chart b

Fishing mortality rate (F) is a measure of the proportion of fish taken from a stock each year by fishing activity. Fishing mortality rates are calculated from mathematical models used to assess fish stocks. An F value of 1 indicates that approximately 60 per cent of a stock is removed by fishing activity.

ICES provides fisheries advice that is consistent with the broad international policy norms of the precautionary approach, maximum sustainable yield (MSY), and an ecosystem approach while at the same time responding to the specific needs of the management bodies requesting advice.

Since 1999 the ICES' advice has identified which catch options meet precautionary criteria. These criteria aim to ensure sustainability by keeping the fishing rate below a **maximum precautionary** level, F_{pa} (set low enough to allow a margin of error sufficient to keep F below an **upper limit** level, F_{lim}). The nature of ICES' fisheries advice is evolving and that evolution includes options for a transition process to attain full implementation of the MSY approach by 2015 where possible and, on a progressive, incremental basis at the latest by 2020. Ecosystem limitations on fisheries have typically not yet been identified in management policies in the ICES' area. However, as the EU Marine Strategy Framework Directive (MSFD) is implemented, such limits will be recognized to achieve environmental objectives, especially regarding biodiversity, sea floor integrity, and food webs. In advance of this, ICES continues to strive towards providing advice that includes a greater range of information on fisheries and the marine ecosystem. For the first time in 2012, and again in 2013, 2014, 2015 and 2016, ICES presented options that incorporate technical interactions for mixed demersal fisheries in the North Sea – options are given as scenarios based on single-stock assessments combined with knowledge on the species composition of catches in North Sea fisheries. In this way, for example, harvests may be further limited in consideration of potential fishery impacts on marine ecosystems beyond the impact on target fish stocks. Additionally, ICES now provides similar options for mixed demersal fisheries in the Celtic Sea.

For each of the main stocks a time series of F will be plotted against a colour coded background highlighting the precautionary levels set by ICES as shown below, for example. In addition, the value of F_{MSY}, presented as a grey line, is shown when available.



Green: Harvested sustainably - where F is below F_{pa} the stock is deemed to be fished in a sustainable way and fishing pressure is below the level recommended by ICES.

Amber: At risk of being harvested unsustainably - where F is above F_{pa} and below F_{lim} then fishing pressure is higher than the maximum level recommended by ICES. If it is not reduced it could lead to depletion of the stock in the future.

Red: Harvested unsustainably - where F is above F_{lim} fishing pressure is much higher than the maximum level recommended by ICES and if continued is likely to deplete the stock, if it has not done so already.

For some stocks ICES may only given a level for F_{pa}. In these cases, no amber region will appear on the chart. Additionally, in exceptional stock cases, ICES may review the data and modelling approaches for which the previously adopted precautionary fishing rates (F_{pa} and F_{lim}) are no

longer appropriate, for example. In such cases, no coloured regions will appear on the chart; but this is not the case for any stock this year's update.

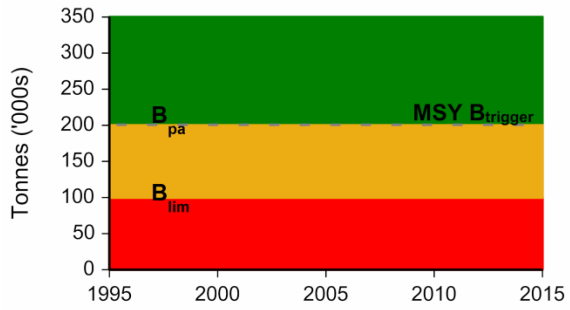
Recruitment - Chart c

Recruitment is the number of fish becoming available to a fishery stock in a year.

Spawning Stock Biomass (SSB) - Chart d

Spawning Stock Biomass (SSB) is the total estimated weight of all sexually mature fish in a stock. Since 1999 the ICES advice has identified which catch options meet precautionary criteria. These criteria aim to ensure sustainability by keeping SSB above a **minimum precautionary** level, B_{pa} (set high enough to allow a margin of error sufficient to keep SSB above a **lower limit** level, B_{lim}).

For each of the main stocks a time series of SSB will be plotted against a colour coded background highlighting the precautionary levels set by ICES as shown below. In addition, the value of MSY $B_{trigger}$, presented as a grey line, is shown when available. MSY $B_{trigger}$ is a biomass reference point that triggers a cautious response to reduce fishing mortality and is intended to safeguard against a low SSB when fishing at F_{MSY}.".



Green: Full reproductive capacity - where SSB is above B_{pa} the fish stock is deemed to be in a healthy state and above the minimum level recommended by ICES.

Amber: At risk of suffering reduced reproductive capacity - where SSB is below B_{pa} but above B_{lim} the stock has been classified as not being so low that it could be classed as being depleted. However, the amount of adult fish has fallen to a level where there is a risk that production is likely to be reduced.

Red: Reduced reproductive capacity - where SSB is below B_{lim} the stock has been classified as depleted and the stock is unlikely to be as productive as it could be. This indicates that fishing pressure needs to be reduced in order to give the stock a chance to rebuild.

For some stocks ICES has only supplied a level for B_{pa}. In these cases no amber region will appear on the chart.

Further information

More information on ICES' precautionary levels and the details of F_{MSY} and MSY $B_{trigger}$ can be found on the ICES web site www.ices.dk.

ICES stock assessments

The fish stock assessments presented here are derived from annual ACOM reports, and are categorized according to the ICES' definition of the state of the stock. The ICES' advice on the state of stocks is based on assessments carried out using the most up to date data available in that year. **It is important to note that assessments for previous years have not been updated using more recent data**. The comparison of SSB with B_{pa} is done using the value of SSB at the beginning of the year in which the assessment was carried out. Where no B_{pa} value exists, the stock is treated as unknown.

Code	Assessment description
	Indicates stocks which are suffering reduced reproductive capacity
	Indicates stocks which are at risk of suffering reduced reproductive capacity
	Indicates stocks which are at full reproductive capacity but are either at risk of being harvested unsustainably or are being harvested unsustainably
	Indicates stocks which are at full reproductive capacity and are being harvested sustainably
	Indicates stocks where the current stock status is unknown

North Sea Cod – in ICES Sub-area IV (North Sea), ICES Division VIId (Eastern Channel) and ICES Division IIIa (Skagerrak)

The international fishing rate has been high since the 1980s, and has shown a decline since 2000. The number of young cod (recruitment) has been low since 1987, and even lower since 1998, causing serious concern. Since 2000, ICES advised that the TAC should be very low, or zero, and the EU reduced the TAC from 81,000 tonnes in 2000 to 48,600 tonnes in 2001, 49,300 tonnes in 2002, and 27,300 tonnes in 2003, 2004 and 2005. The minimum mesh size in the directed fisheries for cod was also increased to 120 mm in 2003. Agreement was reached in 2004 within the EU on a formal recovery plan that was operational during the TAC and management decision processes of 2004, effectively rendering the plan operational in 2005. Subsequently, this was repealed and replaced by Council Regulation (EC) No 1342/2008 to establish a long-term plan for cod stocks. The 2016 ICES assessment indicates that fishing mortality has been declining since 2000 and that SSB has significantly increased from the historic low in 2006. However, the assessment in 2017 necessitated the re-calculation of reference points which is shown in the charts this year. The TAC for 2017 is 39,220 tonnes, compared with 33,651 tonnes in 2016 and 29,189 tonnes in 2015.

Chart 5.1a: Total removals

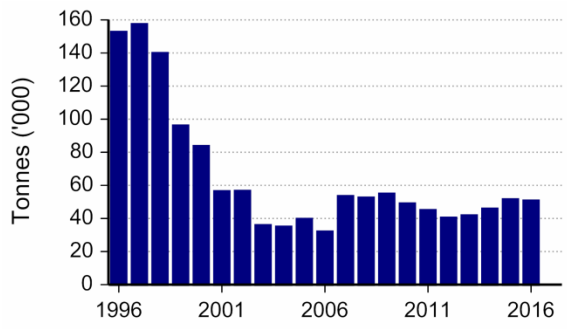


Chart 5.1b: Fishing mortality (F) – ages 2 - 4

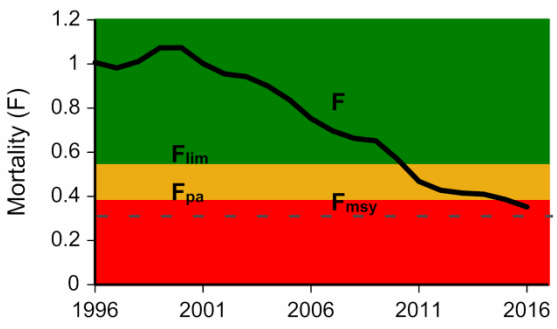


Chart 5.1c: Recruitment - age 1

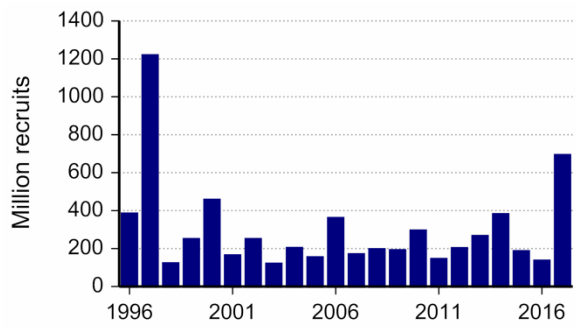
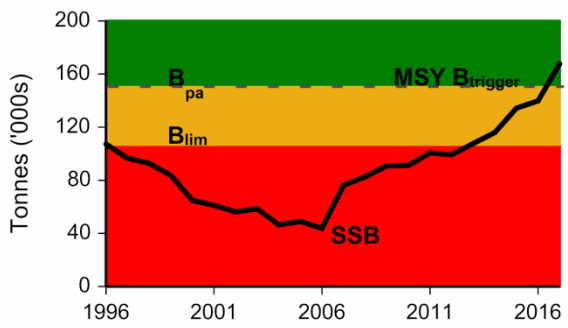


Chart 5.1d: Spawning stock biomass (SSB)



Note: The data in these charts are official statistics and not subject to National Statistics accreditation.

ICES stock assessment: North Sea Cod

The cod stock in the North Sea has been assessed as suffering reduced reproductive capacity by ICES since 2006. The spawning stock biomass has increased from the historic low in 2006 and is now above B_{lim} in the vicinity of MSY $B_{trigger}$. In 2015 and 2016, it was assessed as at risk of suffering reduced reproductive capacity.

West of Scotland Cod – in ICES Division VIa

Previously, the cod stocks west of Scotland have been assessed as heavily over-exploited with respect to the rate that would lead to high long-term yields (F_{MSY}). SSB has increased slowly from an all time low in 2006 but remains well below B_{lim}. ICES called for a recovery plan in 2000, with low or zero catches, and the EU has since cut the cod TACs significantly, implemented two small closed areas, and in 2003 increased the main whitefish mesh size to 120 mm in line with the North Sea. Subsequently, the European Commission enacted Council Regulation (EC) No 423/2004 that established measures for the recovery of cod stocks; this was repealed and replaced by Council Regulation (EC) No 1342/2008 to establish a long-term plan for cod stocks which includes a west of Scotland management line that follows the 200 m depth contour. The TAC for 2017 is a by-catch provision only, the same as in the five previous years since 2012.

Chart 5.2a: Total removals

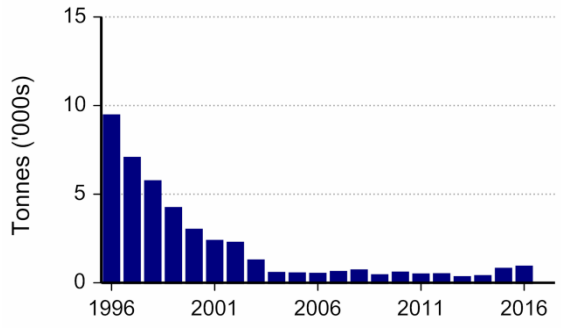


Chart 5.2b: Total mortality – ages 2 - 5

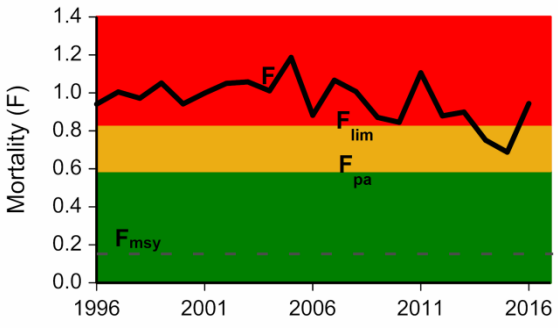


Chart 5.2c: Recruitment - age 1

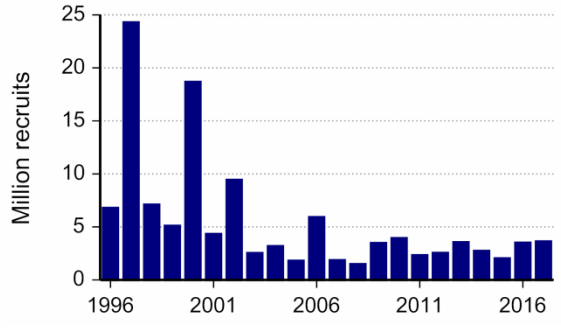
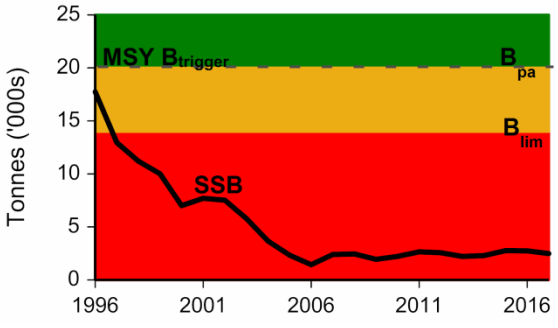


Chart 5.2d: Spawning stock biomass (SSB)



Note: The data in these charts are official statistics and not subject to National Statistics accreditation.

ICES stock assessment: West of Scotland Cod

Cod stocks in the West of Scotland have been assessed as suffering reduced reproductive capacity from 2006 to 2016.

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Stock Assessments		(a,b)	(a,b)	(a,b)	(a,b)	(a,b)					

(a) Total mortality cannot be accurately partitioned into F and M.

(b) Status uncertain in terms of F relative to F_{pa}, but suffering reduced reproductive capacity.

Irish Sea Cod - in ICES Division VIIa (Irish Sea)

The cod stocks in the Irish Sea are seriously depleted, and landings fell rapidly during the 1980s and 1990s. Historically, the fishing rate has been very high, spawning stocks have fallen below both the precautionary and the lower limit level, and the abundance of young cod has been in decline since 1990. After 2000, the EU significantly reduced the cod TAC, closed the cod spawning area in the western Irish Sea during the spawning season, and increased the main whitefish mesh size to 100 mm. The European Commission enacted a Council Regulation (EC) No 423/2004 that established measures for the recovery of cod stocks which was repealed and replaced by Council Regulation (EC) No 1342/2008 to establish a long-term plan for cod stocks. The 2016 cod assessment suggests that the stock is still over-exploited although the time series estimates of fishing rate have been substantially revised, following a review of data and modelling approaches for the 2012 assessment. However, the assessment in 2017 was benchmarked by ICES and provides a significant change in perception which is shown in the charts this year. The cod TAC agreed for 2017 is 146 tonnes, compared with the same value in 2016 and 182 tonnes in 2015.

Chart 5.3a: Total landings

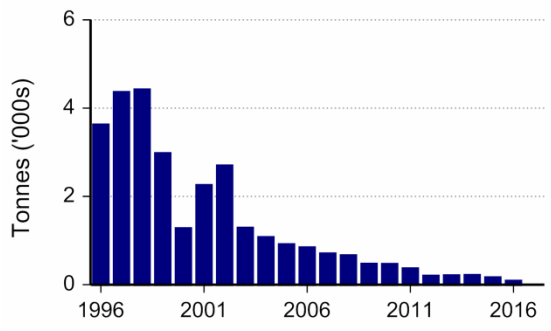


Chart 5.3b: Fishing mortality (F) – ages 2 - 4

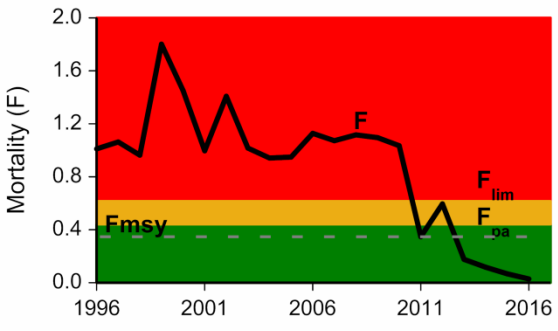


Chart 5.3c: Recruitment - age 0

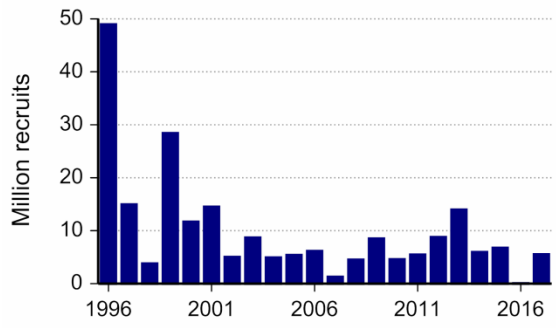
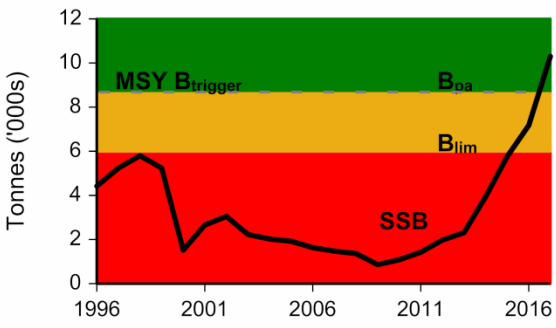


Chart 5.3d: Spawning stock biomass (SSB)



Note: The data in these charts are official statistics and not subject to National Statistics accreditation.

ICES stock assessment: Irish Sea Cod

Irish Sea cod has been assessed to be suffering reduced reproductive capacity since 2006.

Celtic Sea Cod – in ICES Divisions VIIe-k

Internationally, cod in ICES Divisions VIIe-k is caught in a range of fisheries including gadoid trawlers, *Nephrops* trawlers, otter trawlers, beam trawlers and gill-netters. This species is managed within a wider area; namely, ICES Divisions VIIb-k (excluding ICES Division VIId from 2009), ICES Sub-areas VIII, IX, X and CECAF 34.1.1, but ICES advice applies only to ICES Divisions VIIe-k. The Celtic Sea cod stock was excluded from the EU's 2004 cod recovery plan. In 2012 the ICES' cod assessment revised the time series estimates of fishing rate, spawning stock and recruitment, following a review of data and modelling approaches for which the previously adopted precautionary fishing rates (F_{pa} and F_{lim}) were no longer appropriate. In 2015 the ICES' cod assessment revised the precautionary fishing rates and the assessment in 2016 shows that the fishing mortality has been decreasing since 2014 but remains above F_{MSY}.

Chart 5.4a: Total landings

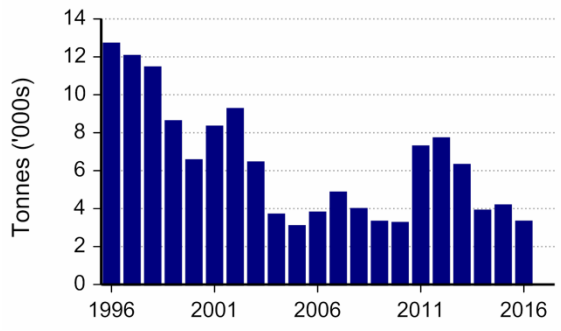


Chart 5.4b: Fishing mortality (F) – ages 2 - 5

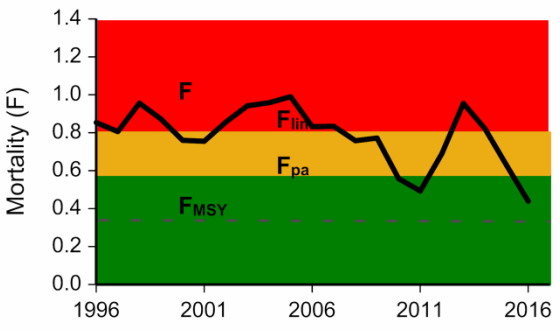


Chart 5.4c: Recruitment - age 1

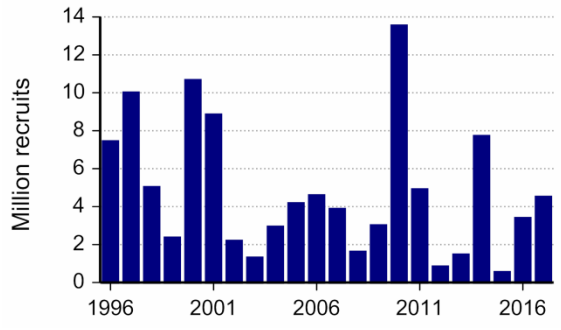
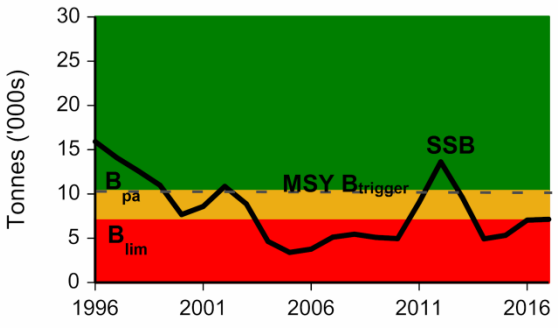


Chart 5.4d: Spawning stock biomass (SSB)



Note: The data in these charts are official statistics and not subject to National Statistics accreditation.

ICES stock assessment: Celtic Sea Cod

In 2006 and 2007 cod in the Celtic Sea has been assessed as suffering reduced reproductive capacity. In 2008, cod in the Celtic Sea was assessed as at risk of suffering reduced reproductive capacity and in 2009 and 2010 an assessment was unable to be made. Subsequently in 2011, cod in the Celtic Sea was assessed as being at full reproductive capacity and being harvested sustainably, and in 2012, 2013 and 2014 it was assessed as remaining at full reproductive capacity but with fishing rate unknown with respect to precautionary values F_{pa} and F_{lim}. In 2015 and 2016, it was assessed as at risk of suffering reduced reproductive capacity.

North Sea, Skagerrak and West of Scotland Haddock – in ICES Sub-area IV (North Sea) and ICES Divisions IIIa (Skagerrak – Kattegat) and VIa (West of Scotland)

The haddock stock in the North Sea and Skagerrak is managed under an EU-Norway long-term management plan which is intended to constrain harvesting within safe biological limits and to provide for sustainable fisheries. Recruitment has been characterized by occasional large year-classes, the last of which was the strong 1999 year-class. Since the 2014 assessment, this haddock stock has been combined with haddock in the Northern Shelf and assessed as a single stock by ICES.

The 2016 assessment shows that the fishing mortality rate has been fluctuating above F_{MSY} for most of the time series and that SSB has been mostly above MSY $B_{trigger}$ since 2002; and that apart from the relatively strong 2005 and 2009 year-classes recent recruitment has been poor.

In the North Sea, the haddock TAC was set at 40,711 tonnes for 2015, 61,933 tonnes for 2016 and 33,643 tonnes in 2017.

In the West of Scotland, the TAC for 2017 is 3,697 tonnes, compared with 6,462 tonnes in 2016 and 4,536 tonnes in 2015.

Chart 5.5a: Total removals

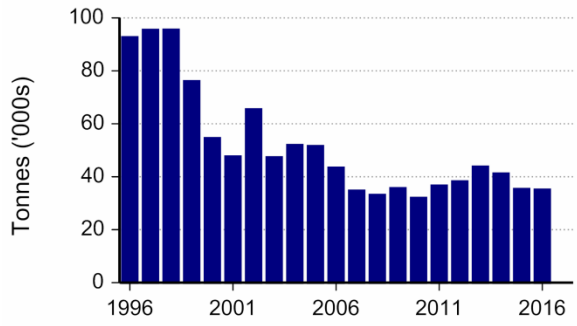


Chart 5.5b: Fishing mortality (F) – ages 2 - 4

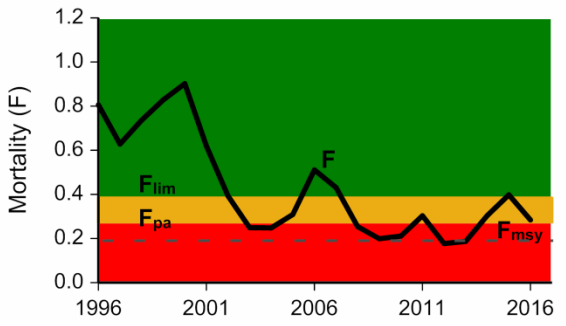


Chart 5.5c: Recruitment - age 0

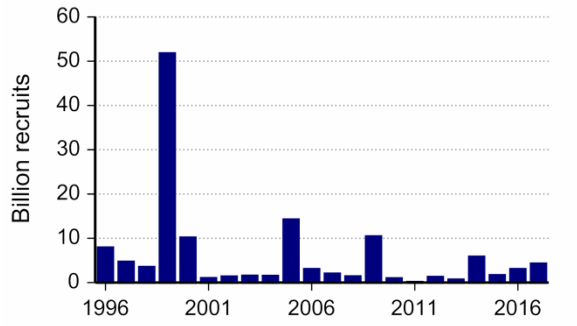
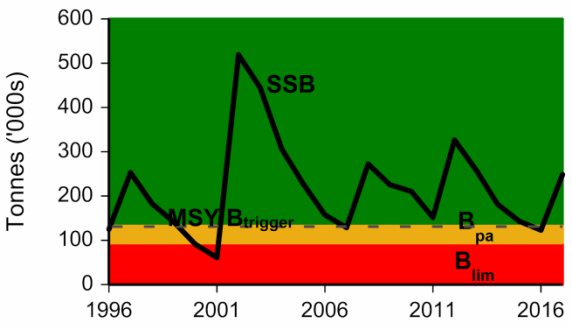


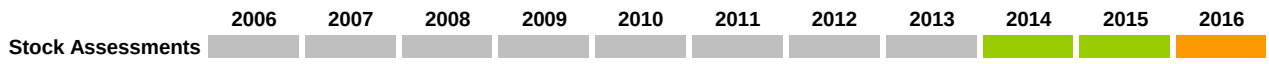
Chart 5.5d: Spawning stock biomass (SSB)



Note: The data in these charts are official statistics and not subject to National Statistics accreditation.

ICES stock assessment: North Sea, Skagerrak and West of Scotland

In 2014 and 2015, ICES has assessed the new combined area haddock stock as being at full reproductive capacity and being harvested sustainably. In 2016, however, it was assessed as at risk of suffering reduced reproductive capacity.



North Sea Plaice – in ICES Sub-area IV (North Sea)

The plaice assessments have included estimates of discards since 2004. This has changed the perception of the plaice stock relative to precautionary values. It shows landings and SSB falling steeply after 1990 as the fishing rate increased to a peak in 1997, with SSB currently well above MSY $B_{trigger}$, and with the fishing rate estimated to have decreased to below F_{pa} and consistent with high long-term yields (F_{MSY}). Discarding of small plaice continues to be a problem. A long-term management plan for North Sea plaice and sole has been under development within the European Commission – final details are contained within Council Regulation (EC) No 676/2007 of 11 June 2007. The TAC for 2017 is 129,917 tonnes, compared with 131,714 tonnes in 2016 and 128,376 tonnes in 2015.

Chart 5.6a: Total removals

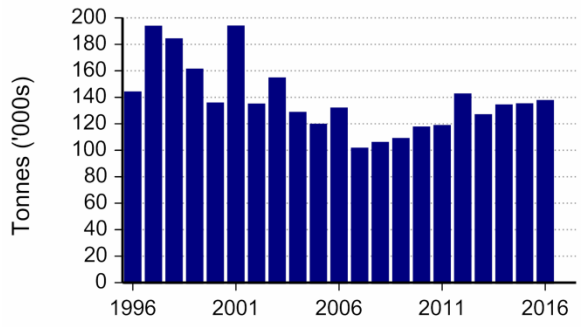


Chart 5.6b: Fishing mortality (F) – ages 2 - 6

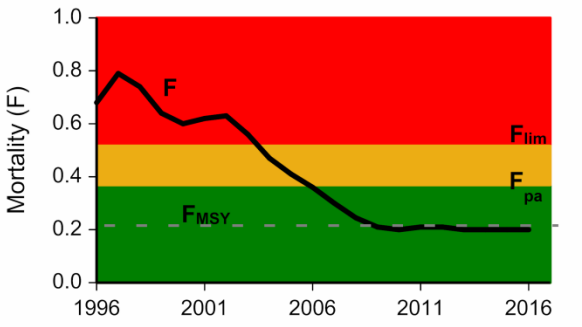


Chart 5.6c: Recruitment - age 1

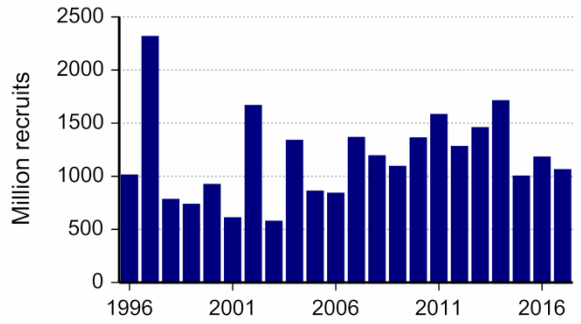
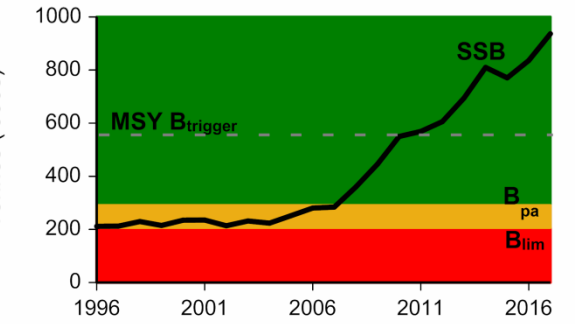


Chart 5.6d: Spawning stock biomass (SSB)



Note: The data in these charts are official statistics and not subject to National Statistics accreditation.

ICES stock assessment: North Sea Plaice

North Sea plaice assessments in 2006 and 2007 were that the stock was at risk of suffering reduced reproductive capacity. Subsequent assessments have improved and since 2008 the stock is assessed to be at full reproductive capacity and being harvested sustainably.

Irish Sea Plaice - in ICES Division VIIa (Irish Sea)

The fishing rate on Irish Sea plaice has shown a declining trend since the early 1990s and the SSB trends show an increase in stock size since the mid-1990s. Discards are now included in the ICES assessment and discard sampling studies have indicated that discarding may be as high as 80 per cent by number. Hence, the assessment in 2016 uses survey data to show SSB and mortality trends only. The available information is inadequate to evaluate SSB and F relative to precautionary boundaries. However, the assessment in 2017 was benchmarked by ICES and precautionary boundaries provided; together with values for F_{MSY} and MSY $B_{trigger}$ which is shown in the charts this year. The plaice TAC agreed for 2017 is 1,098 tonnes, the same as in the two previous years (2016 and 2015).

Chart 5.7a: Total landings

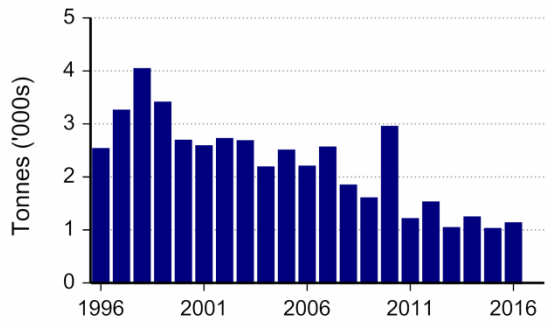


Chart 5.7b: Fishing mortality (F) – ages 3 - 6

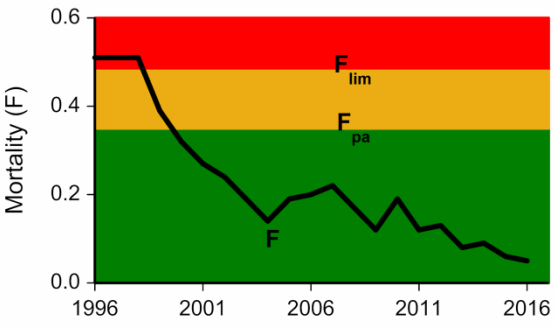


Chart 5.7c: Recruitment - age 2

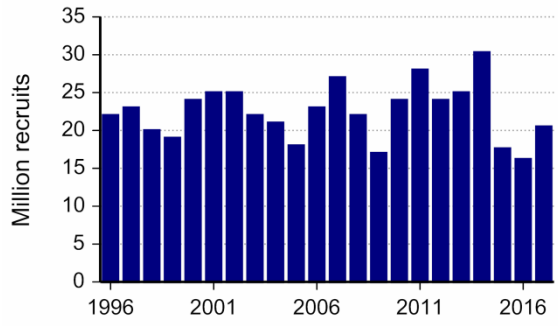
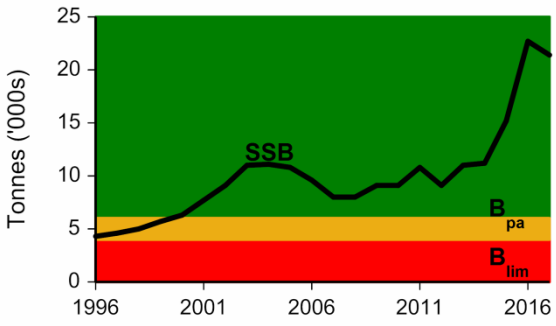


Chart 5.7d: Spawning stock biomass (SSB)



Note: The data in these charts are official statistics and not subject to National Statistics accreditation.

ICES stock assessment: Irish Sea Plaice

Between 2006 and 2009 Irish Sea plaice has been assessed as being at full reproductive capacity and being harvested sustainably. Since 2010 the available information has been inadequate to determine stock status relative to precautionary boundaries.

North Sea Sole – in ICES Sub-area IV (North Sea)

The fishing rate for North Sea sole has fluctuated above the precautionary level in the past, falling below this since 2008. Periodic good year-classes have raised SSB above the precautionary level from time to time. SSB has fluctuated around the precautionary reference points during the last decade and has been increasing since 2007 and has been estimated at above MSY $B_{trigger}$ since 2012; and the fishing rate has declined since 1997 and is close to the rate that would lead to high long-term yields (F_{MSY}). The TAC agreed for 2017 is 16,123 tonnes, compared with 13,262 tonnes in 2016 and 11,900 tonnes in 2015.

Chart 5.8a: Total landings

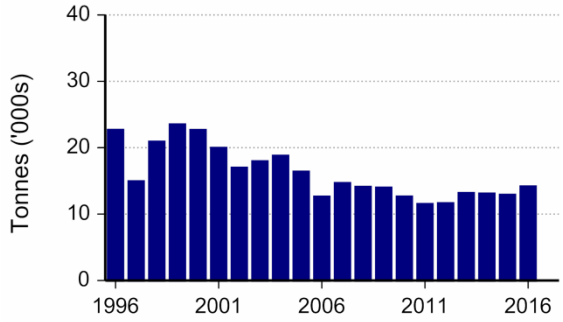


Chart 5.8b: Fishing mortality (F) – ages 2 - 6

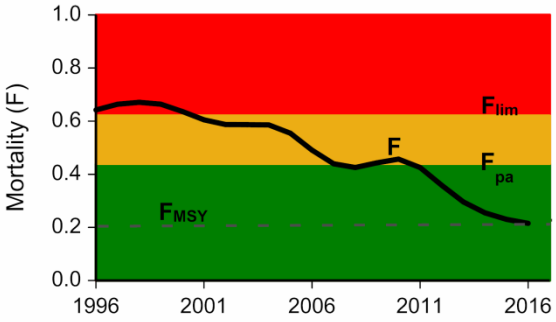


Chart 5.8c: Recruitment - age 1

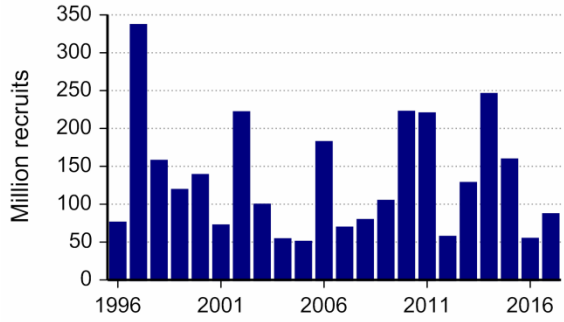
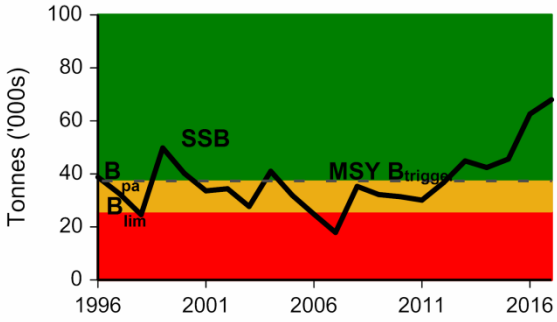


Chart 5.8d: Spawning stock biomass (SSB)



Note: The data in these charts are official statistics and not subject to National Statistics accreditation.

ICES stock assessment: North Sea Sole

North Sea sole assessments have varied widely since 2006. However, since 2011 North Sea sole has been assessed as being at full reproductive capacity and being harvested sustainably.

Irish Sea Sole - in ICES Division VIIa (Irish Sea)

The Irish Sea sole fishing rate is just above the rate that would lead to high long-term yields (F_{MSY}). SSB has declined since 2001 to low levels and has been below B_{lim} since 2004. The sole TAC agreed for 2017 is 40 tonnes, compared with the same value in 2016 and 90 tonnes in 2015.

Chart 5.9a: Total landings

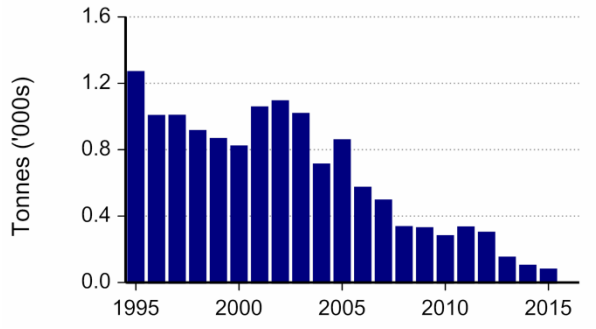


Chart 5.9b: Fishing mortality (F) – ages 4 - 7

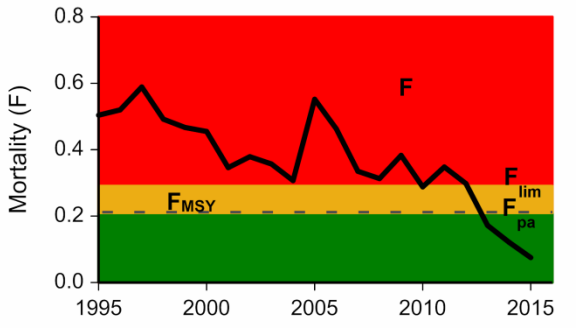


Chart 5.9c: Recruitment - age 2

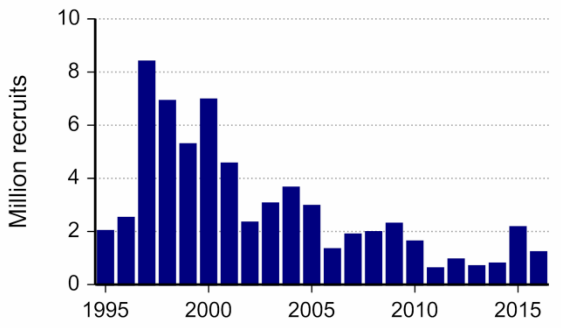
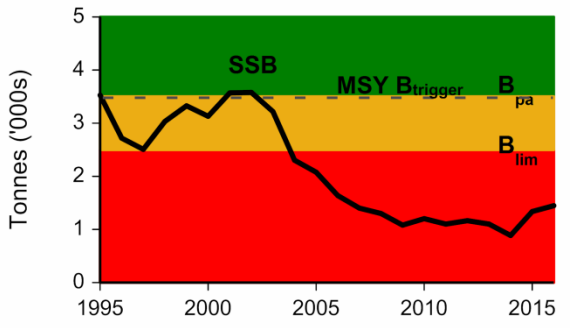


Chart 5.9d: Spawning stock biomass (SSB)



Note: The data in these charts are official statistics and not subject to National Statistics accreditation.

ICES stock assessment: Irish Sea Sole

Since 2006 the stock has either been assessed as suffering or at risk of suffering reduced reproductive capacity.

Eastern Channel Sole – in ICES Division VIId (Eastern Channel)

Sole stocks in the Eastern and Western Channel are biologically discrete stocks that are assessed and managed separately. In the larger, Eastern Channel stock, the assessed fishing rate has generally been above F_{MSY} throughout the time series but has recently been decreasing, and SSB has fluctuated without trend between B_{lim} and MSY $B_{trigger}$. The TAC for 2017 is 2,769 tonnes, compared with 3,258 tonnes in 2016 and 3,483 tonnes in 2015.

Chart 5.10a: Total landings

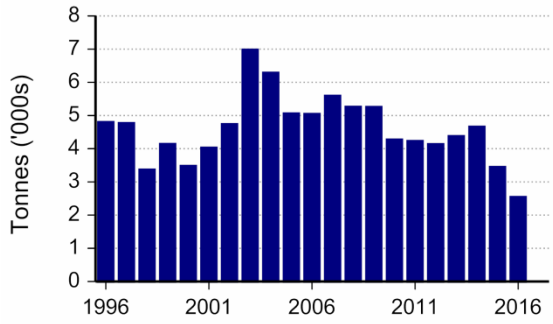


Chart 5.10b: Fishing mortality (F) – ages 3 - 8

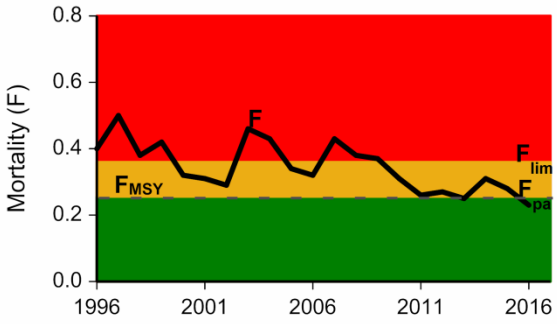


Chart 5.10c: Recruitment - age 1

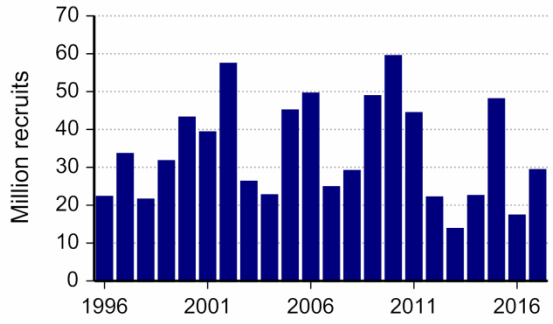
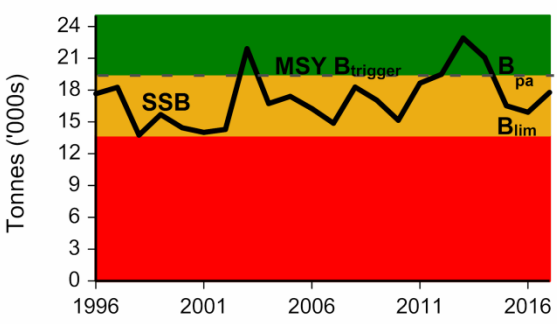


Chart 5.10d: Spawning stock biomass (SSB)



Note: The data in these charts are official statistics and not subject to National Statistics accreditation.

ICES stock assessment: Eastern Channel Sole

The Eastern Channel sole stock had consistently been assessed at full reproductive capacity since 2006. However, from 2008 to 2015 the stock was judged to be at risk of being harvested unsustainably. In 2016 the stock was assessed at risk of suffering reduced reproductive capacity.

Western Channel Sole – in ICES Division VIIe (Western Channel)

Sole stocks in the Eastern and Western Channel are biologically discrete stocks that are assessed and managed separately. In the smaller, Western Channel stock, the accepted assessment in 2008 indicated that the assessed fishing rate has been above F_{pa} since 1979, and that SSB has declined since 1980 to an historic low. The assessment in 2009 was merely indicative of trends, while in 2010 an analytical assessment was provided but one for which it was not possible to determine current stock status relative to precautionary boundaries. Since 2012 an analytical assessment has been provided but one for which it was not possible to determine stock status relative to precautionary boundaries as these were withdrawn by ICES for this stock until 2015. Fishing mortality is estimated to have been below F_{MSY} since 2009 and SSB has been above MSY $B_{trigger}$ since 1999. The TAC for 2017 is 1,178 tonnes, compared with 979 tonnes in 2016 and 851 tonnes in 2015.

Chart 5.11a: Total landings

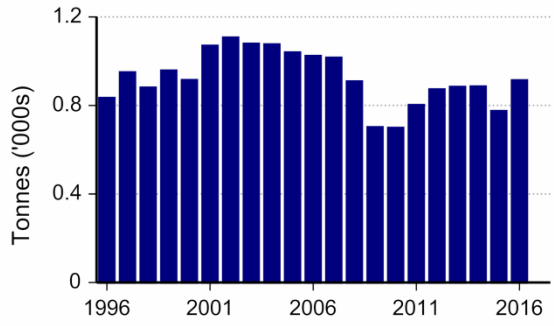


Chart 5.11b: Fishing mortality (F) – ages 3 - 7

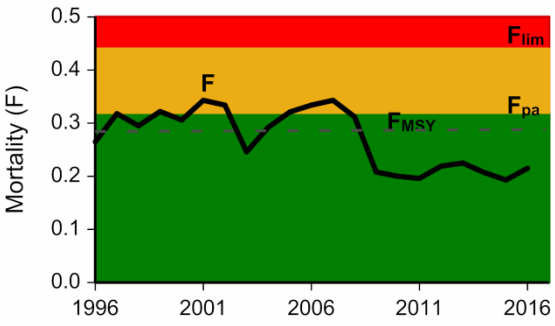


Chart 5.11c: Recruitment - age 1

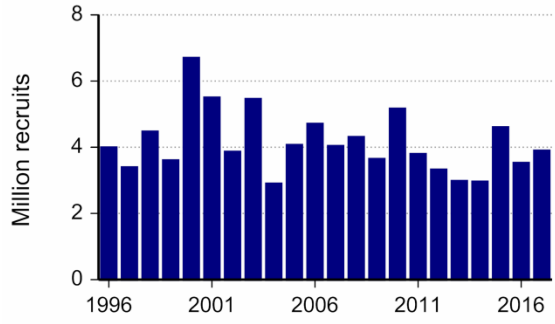
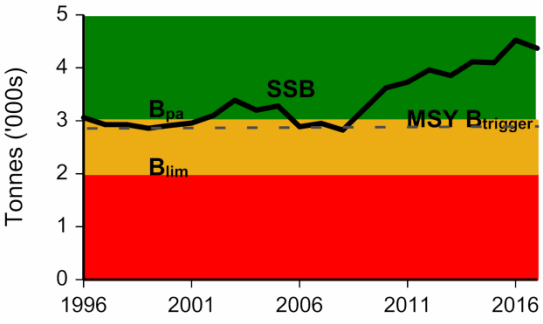


Chart 5.11d: Spawning stock biomass (SSB)



Note: The data in these charts are official statistics and not subject to National Statistics accreditation.

ICES stock assessment: Western Channel Sole

Between 2006 and 2008, VIIe sole has been assessed as a stock at risk of suffering reduced reproductive capacity. Assessments were unable to be made in 2009 and 2010 while in 2011 an assessment was undertaken but the precautionary reference points were withdrawn by ICES. The same situation is the case in 2012, 2013 and 2014. In 2015 and 2016, it was assessed as being at full reproductive capacity and being harvested sustainably.

North Sea Herring – in ICES Sub-area IV (North Sea), ICES Division VIId (Eastern Channel) and ICES Division IIIa (Skagerrak – Kattegat)

The North Sea herring stock, which collapsed in the 1970s and was closed to fishing for several years, subsequently recovered, and although it fell back in the mid-1990s, it has again been rehabilitated. In 2016, SSB was above the precautionary level with a moderate fishing rate on both juvenile and adult herring. Recruitment was below average between 2003 and 2013, stronger in 2014 but then returning to lower values in recent years. The TAC in 2017 is 481,608 tonnes, compared with 518,242 tonnes in 2016 and 445,329 tonnes in 2015.

Chart 5.12a: Total landings

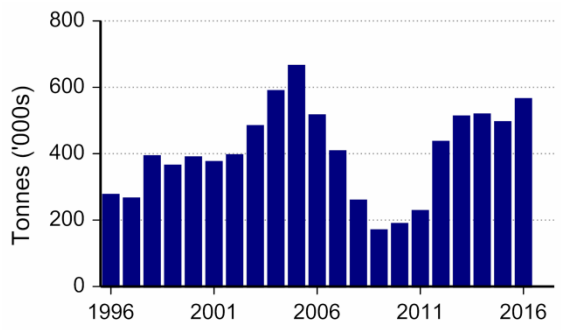


Chart 5.12b: Fishing mortality (F) – ages 2 - 6

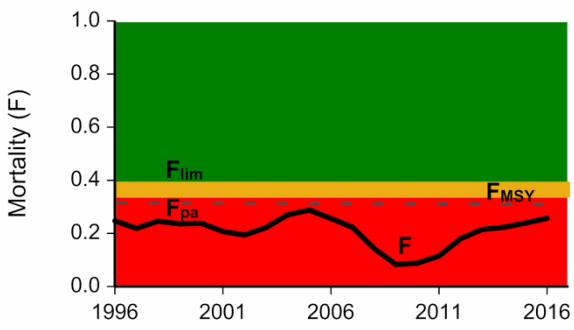


Chart 5.12c: Recruitment - age 0

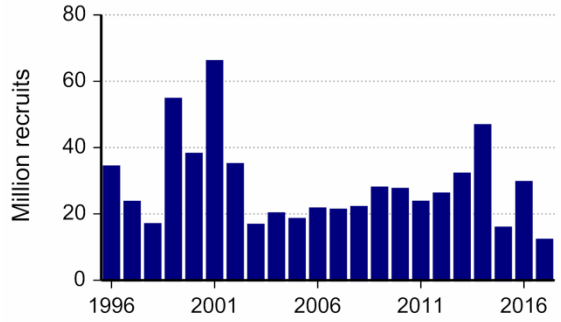
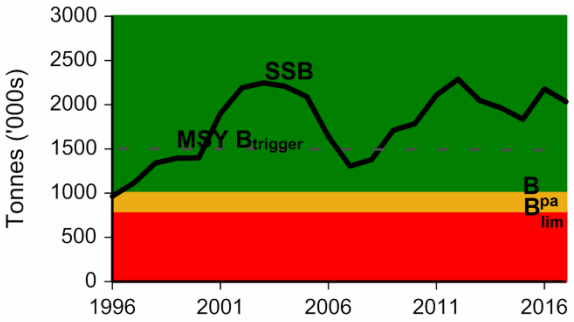


Chart 5.12d: Spawning stock biomass (SSB)



Note: The data in these charts are official statistics and not subject to National Statistics accreditation.

ICES stock assessment: North Sea Herring

North Sea herring was assessed as a stock at risk of being harvested unsustainably in 2006 and a stock at risk of suffering reduced reproductive capacity for the years 2007 to 2010, inclusive. Since 2011, North Sea herring has been assessed as being at full reproductive capacity and being harvested sustainably below the rate that would lead to high long-term yields.

North East Atlantic Mackerel – combined Southern, Western and North Sea spawning components

Mackerel is assessed as the single North East Atlantic (NEA) stock which combines the Southern, Western and North Sea spawning components. SSB has increased considerably since the early 2000s and remains high above MSY $B_{trigger}$. There has been a succession of strong year-classes since the early 2000s. New management measures adopted from 2009 led to an increase of almost 33 per cent in the 2009 TAC in the NEA for mackerel, while maintaining measures to protect the North Sea spawning component. A TAC of 1,020,996 tonnes was agreed for 2017, with shares to be allocated in line with the 2014-2018 arrangement for the stock. For reference, the TAC was not agreed for the years 2011 to 2016, inclusive.

Chart 5.13a: Total removals

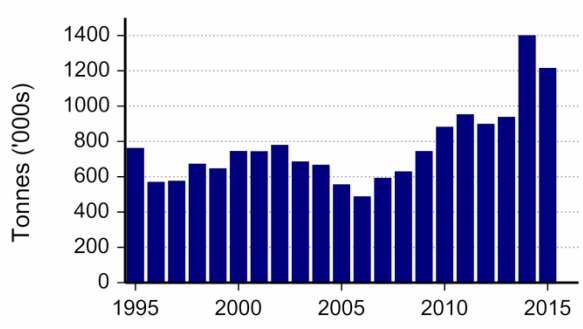


Chart 5.13b: Fishing mortality (F) – ages 4 - 8

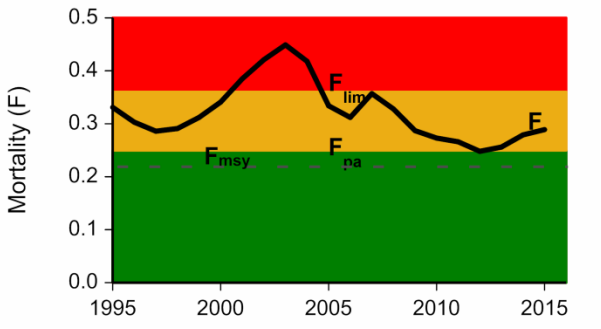


Chart 5.13c: Recruitment - age 0

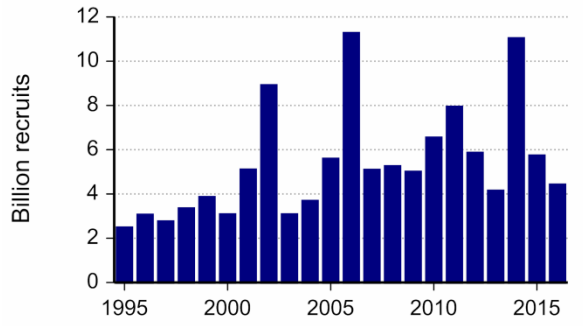
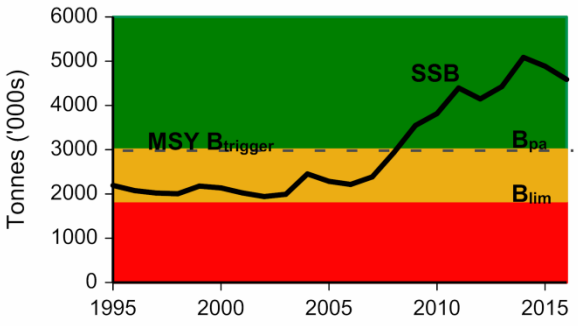


Chart 5.13d: Spawning stock biomass (SSB)



Note: The data in these charts are official statistics and not subject to National Statistics accreditation.

ICES stock assessment: North East Atlantic Mackerel

From 2006 to 2012 North East Atlantic mackerel has been assessed as being at full reproductive capacity but either at risk of or being harvested unsustainably. Between 2013 and 2015, the stock has been assessed as being at full reproductive capacity and being harvested sustainably. In 2016 North East Atlantic mackerel was judged to be at risk of being harvested unsustainably, although assessed as being at full reproductive capacity.

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Stock Assessments	(a)	(a)					(a)				

(a) Status uncertain in terms of SSB relative to B_{pa}; but harvested unsustainably

6 Overview of the world fishing industry

Introduction

The world catch data presented in this chapter have been extracted from the most recently available data from the Food and Agricultural Organisation (FAO) of the United Nations. These tables present annual statistics of nominal catches (see Appendix 2, Glossary of terms). The data are official statistics and are not subject to National Statistics accreditation. The FAO updates historic data frequently. Revisions have not been highlighted in the following tables.

World catch

Table 6.1 shows that in 2015, the world catch from marine fishing was 81.2 million tonnes, 2 per cent higher than in 2014. All marine areas saw increases in landings in 2015. Vessels from Asia and the Middle East caught 53 per cent of the world total compared with 46 per cent ten years earlier. European vessels accounted for 17 per cent of world catch.

TABLE 6.1 World catch by continent: 2005 to 2015

Figures refer to Marine Fishing Areas unless otherwise specified (Million tonnes)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Europe	13.6	13.2	13.1	12.8	13.1	13.5	13.0	12.7	13.1	13.4	13.7
Africa	5.0	4.5	4.5	4.6	4.8	5.0	4.9	5.6	5.4	5.6	5.8
North America	6.2	6.1	6.0	5.5	5.3	5.5	6.1	6.1	6.2	6.1	6.1
Central & S. America[(a)]	18.2	15.9	15.8	16.0	15.2	11.5	15.9	11.8	12.0	10.3	10.9
Asia[(b)]	38.6	39.2	39.6	39.2	39.2	40.0	40.2	40.8	41.3	43.1	43.2
Oceania	1.5	1.3	1.4	1.2	1.2	1.2	1.2	1.3	1.2	1.3	1.3
Other nei[(c)]	..	..	..	..	..	..	..	..	..	..	..
Total Marine Areas	**83.0**	**80.3**	**80.4**	**79.3**	**78.8**	**76.7**	**81.3**	**78.2**	**79.2**	**79.8**	**81.2**

Source: FAO

(a) Central & S.America includes the Caribbean.

(b) Asia includes the Middle East. Figures have been revised downwards because of FAO amendments to Myanmar's catch.

(c) Not elsewhere included.

Note: The data in this table are official statistics and are not subject to National Statistics accreditation.

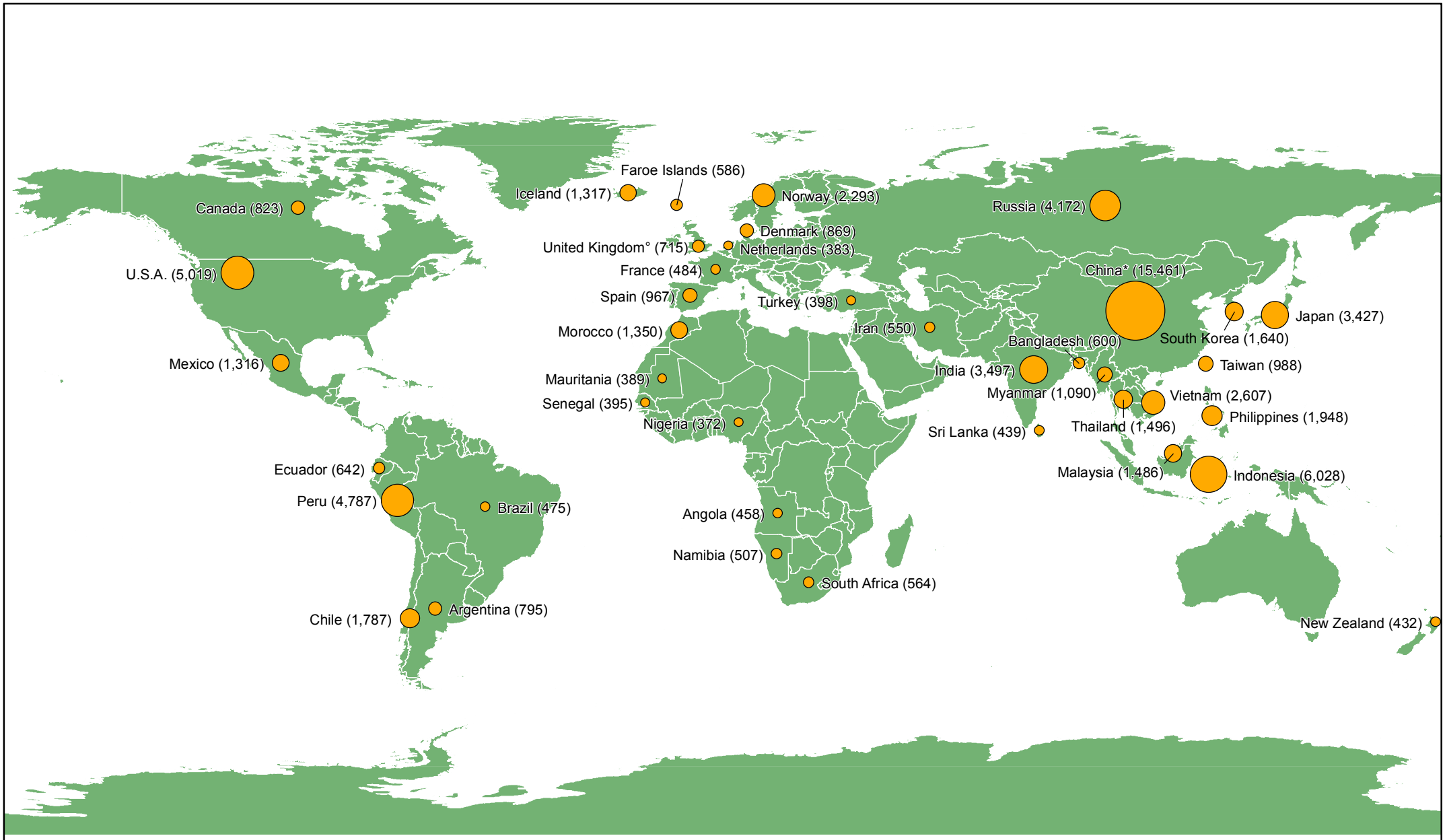
Note: Additional data on world catch by nationality of vessel are available from the MMO website as supplementary Table 6.1a.

Chart 6.1 shows the total catch by major fishing nations in terms of quantity caught in 2015.

In 2015, China (including Hong Kong and Macao SAR) caught the largest amount of fish, 15.5 million tonnes. Indonesia had the second largest catch at 6.0 million tonnes, followed by the United States of America (5.0 million tonnes), Peru (4.8 million tonnes) and the Russian Federation (4.2 million tonnes) and Japan (3.6 million tonnes).

In 2015, Spain caught 967 thousand tonnes, the highest of any country in the European Union. FAO figures show a UK catch of 715 thousand tonnes in 2015 (including 10 thousand tonnes by the Isle of Man and the Channel Islands). Note this is slightly different from the more recent figure of 709 thousand tonnes shown in Table 3.1 of Chapter 3, which does exclude some landings by the Channel Islands fleet. Denmark caught 869 thousand tonnes.

Chart 6.1: World catch by nationality of vessel, major catchers of fish: 2015 ('000 tonnes)



* Catch for China includes Hong Kong SAR and Macao SAR.
° Catch for UK includes Channel Islands and Isle of Man.

FAO fishing areas are shown in Chart 6.2. Of the 81.2 million tonnes of fish caught in 2015, 59 per cent were caught in the Pacific Ocean, 28 per cent in the Atlantic Ocean and 14 per cent in the Indian Ocean (see Table 6.2).

In 2015, catches from the Pacific were 6 cent lower than in 2005. Marine catches in the Indian Ocean have increased by 11 per cent over the same period. The increase in the Atlantic was 1 per cent, which includes a 5 per cent reduction in landings in the North East Atlantic over the last ten years.

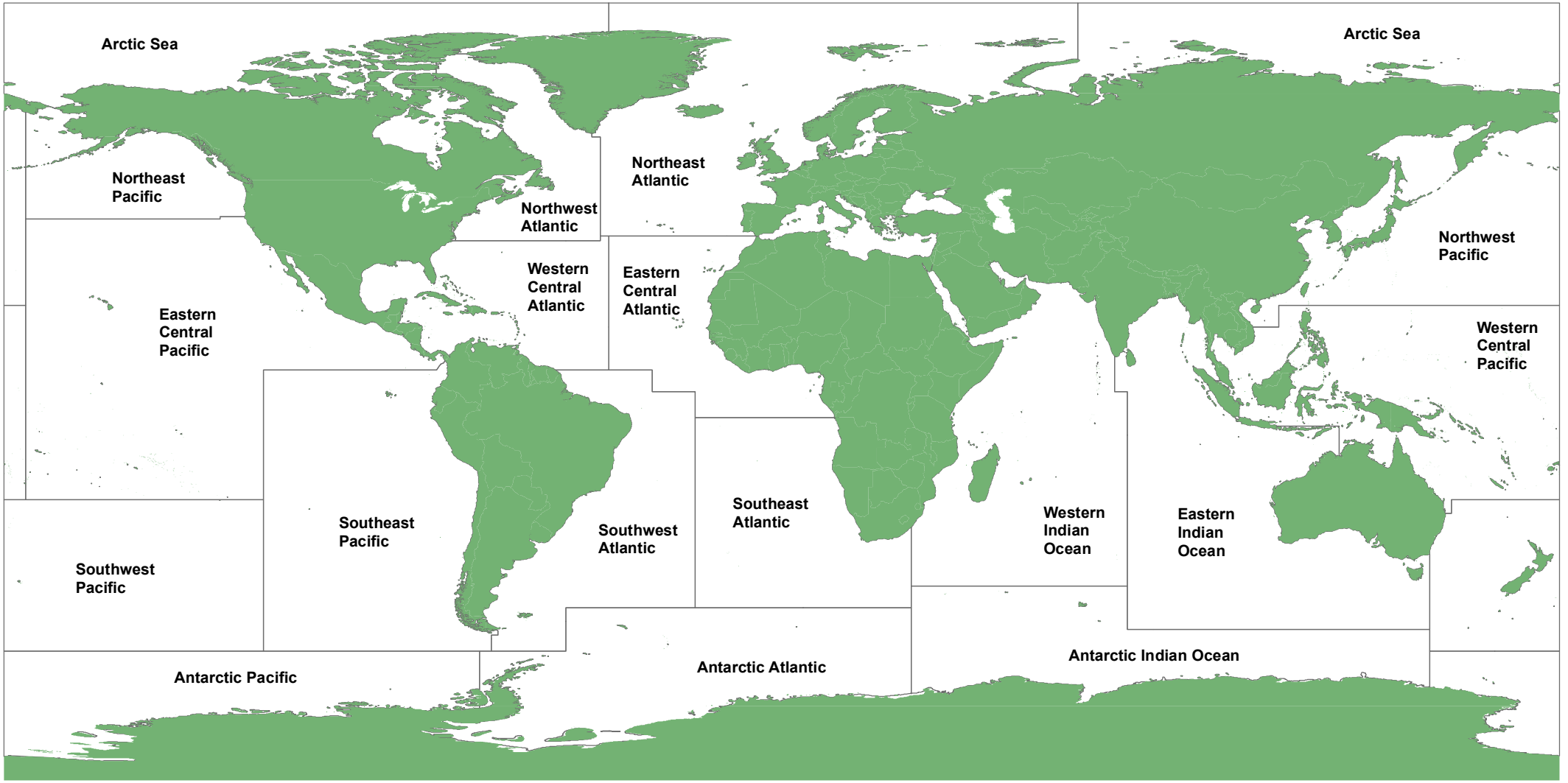
TABLE 6.2 World catch by sea area: 2005 to 2015

Figures refer to Marine Fishing Areas only (Million tonnes)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Atlantic Ocean											
Arctic Sea	-	-	..	..	-	..	..	..	..	..	..
Northwest Atlantic	2.2	2.2	2.2	2.1	2.1	2.1	2.0	2.0	1.9	1.8	1.8
Northeast Atlantic	9.6	9.1	8.9	8.5	8.5	8.7	8.0	8.0	8.5	8.7	9.1
Western Central Atlantic	1.4	1.4	1.4	1.3	1.4	1.2	1.4	1.4	1.3	1.2	1.4
Eastern Central Atlantic	3.8	3.6	3.6	3.9	4.2	4.5	4.3	4.2	4.2	4.4	4.3
Mediterranean and Black Sea	1.4	1.6	1.7	1.5	1.5	1.4	1.4	1.3	1.2	1.1	1.3
Southwest Atlantic	1.8	2.4	2.5	2.4	1.9	1.8	1.7	1.9	2.0	2.4	2.4
Southeast Atlantic	1.6	1.4	1.4	1.4	1.2	1.4	1.3	1.7	1.4	1.6	1.7
Antarctic Atlantic	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.2
Total Atlantic Ocean	**22.1**	**21.7**	**21.8**	**21.2**	**20.8**	**21.3**	**20.5**	**20.6**	**20.6**	**21.5**	**22.4**
India Ocean											
Western Indian Ocean	4.4	4.5	4.2	4.1	4.1	4.3	4.2	4.5	4.6	4.8	4.7
Eastern Indian Ocean	5.5	5.7	5.7	5.8	6.0	6.0	6.1	6.1	6.2	6.5	6.4
Antarctic Indian Ocean	..	..	..	..	..	..	..	..	..	..	..
Total Indian Ocean	**9.9**	**10.2**	**9.9**	**10.0**	**10.2**	**10.2**	**10.4**	**10.7**	**10.8**	**11.3**	**11.0**
Pacific Ocean											
Northwest Pacific	19.7	19.7	19.9	20.1	20.5	20.9	21.4	21.4	21.4	21.9	22.1
Northeast Pacific	3.2	3.1	2.9	2.6	2.3	2.4	3.0	2.9	3.2	3.1	3.2
Western Central Pacific	11.1	11.1	11.3	10.8	11.0	11.5	11.3	11.7	12.1	12.5	12.6
Eastern Central Pacific	1.7	1.7	1.8	1.9	2.0	1.9	1.9	2.0	2.0	1.9	1.7
Southwest Pacific	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Southeast Pacific	14.7	12.3	12.1	12.2	11.5	7.8	12.3	8.3	8.5	6.9	7.7
Antarctic Pacific	..	..	..	..	..	..	..	..	..	..	..
Total Pacific Ocean	**51.0**	**48.4**	**48.6**	**48.2**	**47.8**	**45.2**	**50.4**	**47.0**	**47.8**	**47.0**	**47.8**
World Total	**83.0**	**80.3**	**80.4**	**79.3**	**78.8**	**76.7**	**81.3**	**78.2**	**79.2**	**79.8**	**81.2**

Source: FAO

Chart 6.2: FAO marine fishing areas



Appendix 1: Supplementary charts showing landings and effort by UK vessels by ICES rectangle: 2016

Chart A1.1: Cod landings by UK vessels by ICES rectangle: 2016

Chart A1.1a: Quantity of landings by ICES rectangle

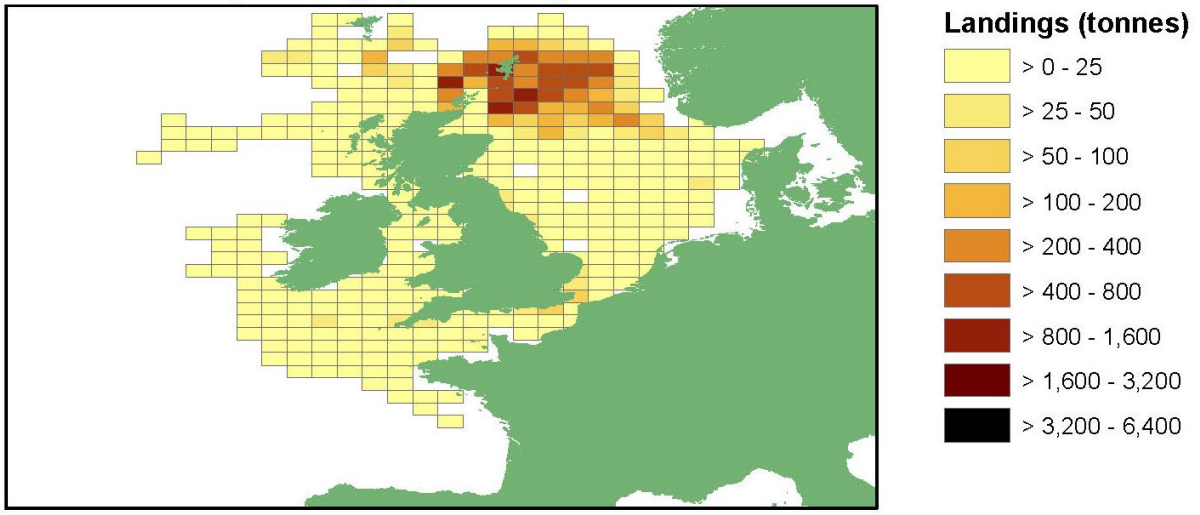


Chart A1.1b: Value of landings by ICES rectangle

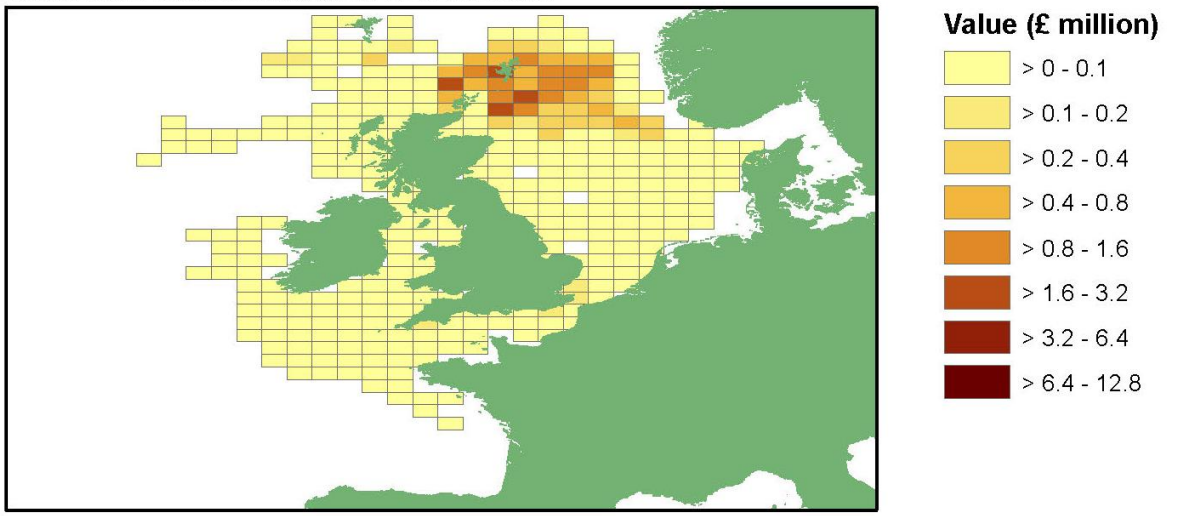


Chart A1.1c: Value of landings per tonne by ICES rectangle

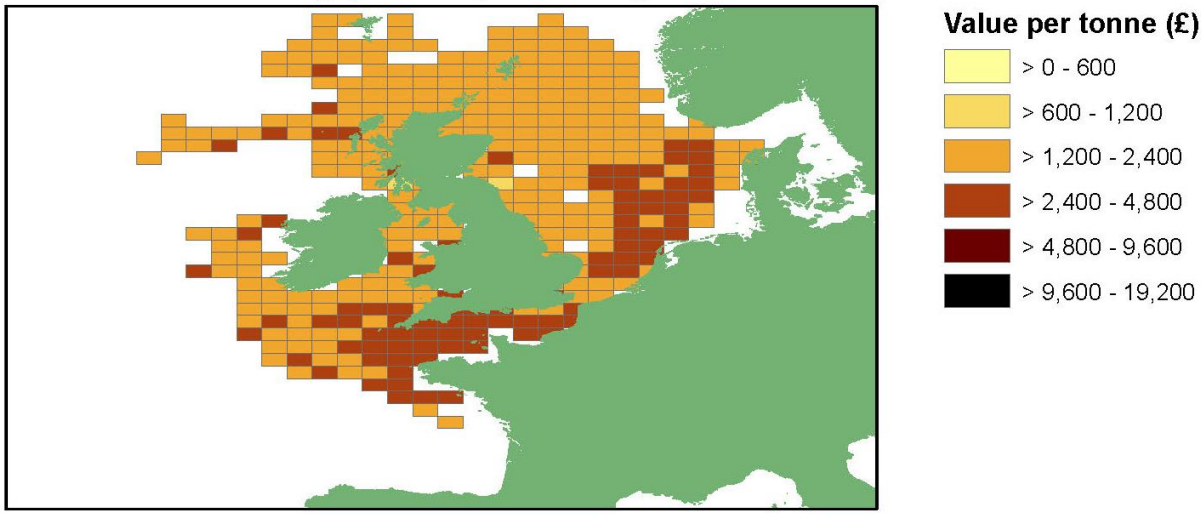


Chart A1.2: Haddock landings by UK vessels by ICES rectangle: 2016

Chart A1.2a: Quantity of landings by ICES rectangle

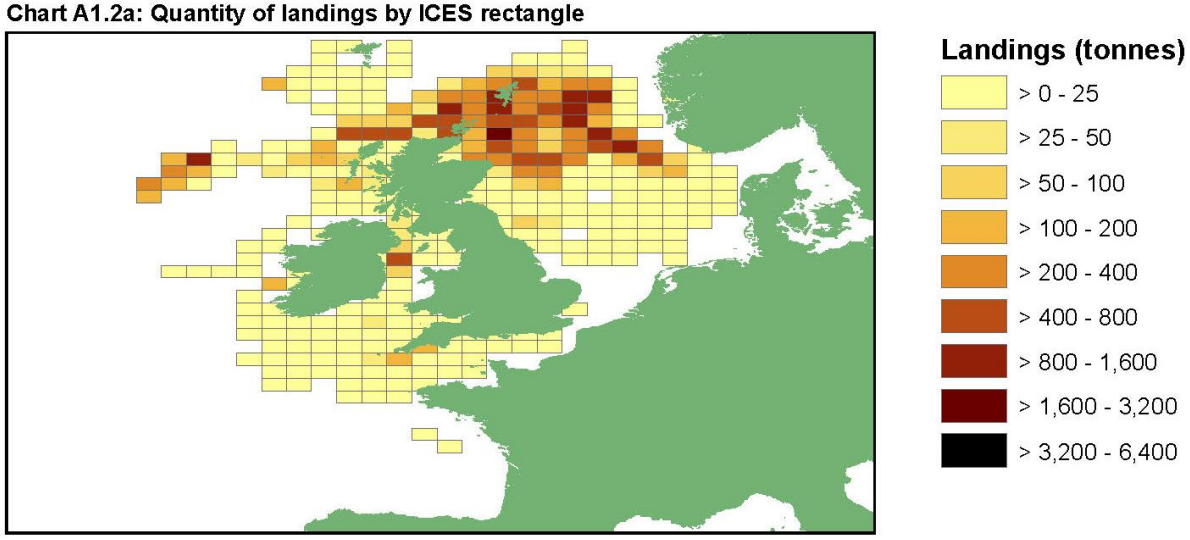


Chart A1.2b: Value of landings by ICES rectangle

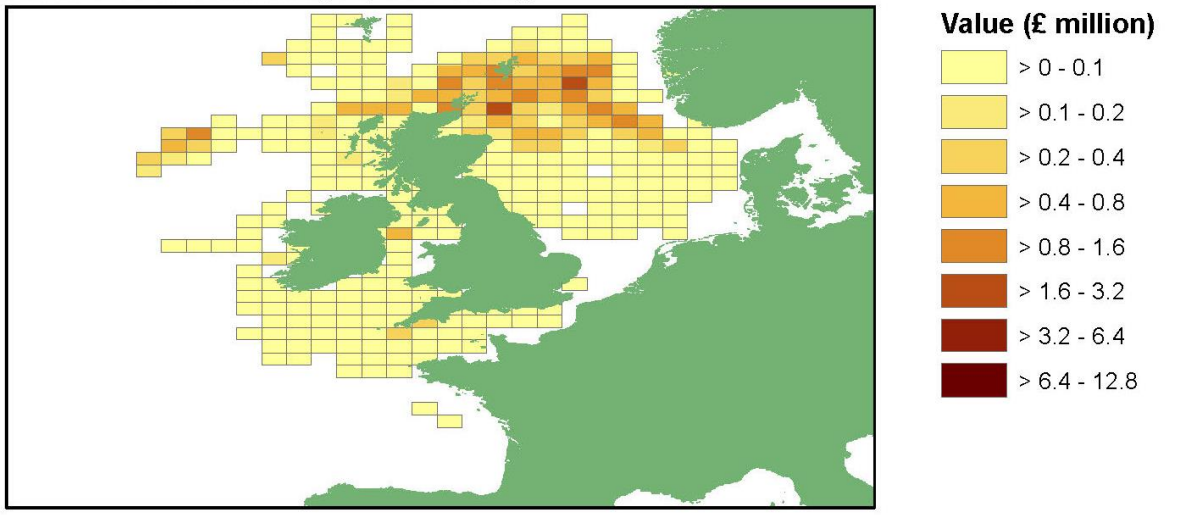


Chart A1.2c: Value of landings per tonne by ICES rectangle

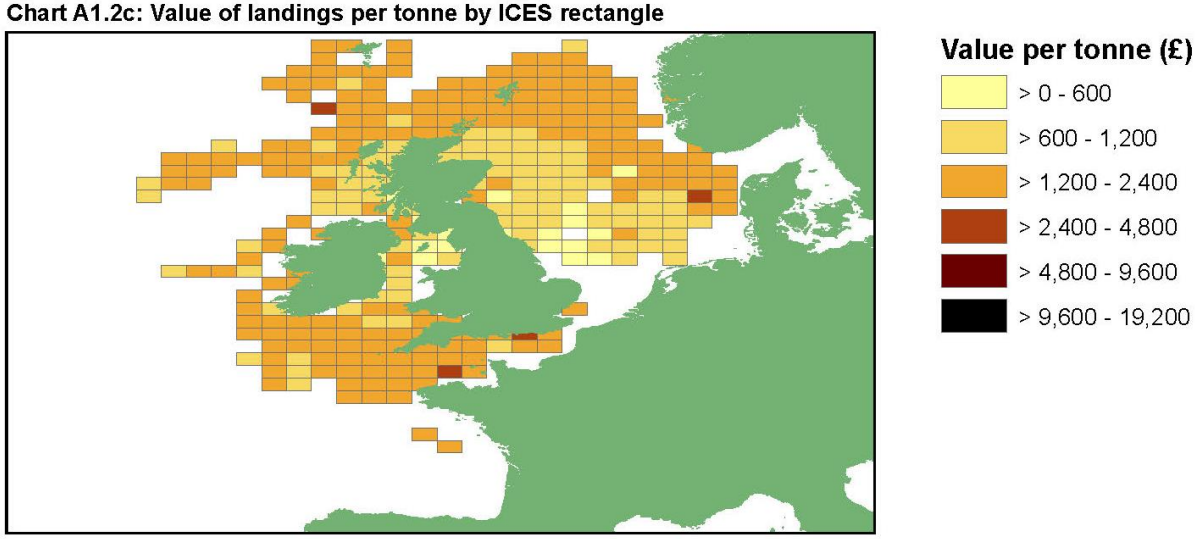


Chart A1.3: Monk or Angler landings by UK vessels by ICES rectangle: 2016

Chart A1.3a: Quantity of landings by ICES rectangle

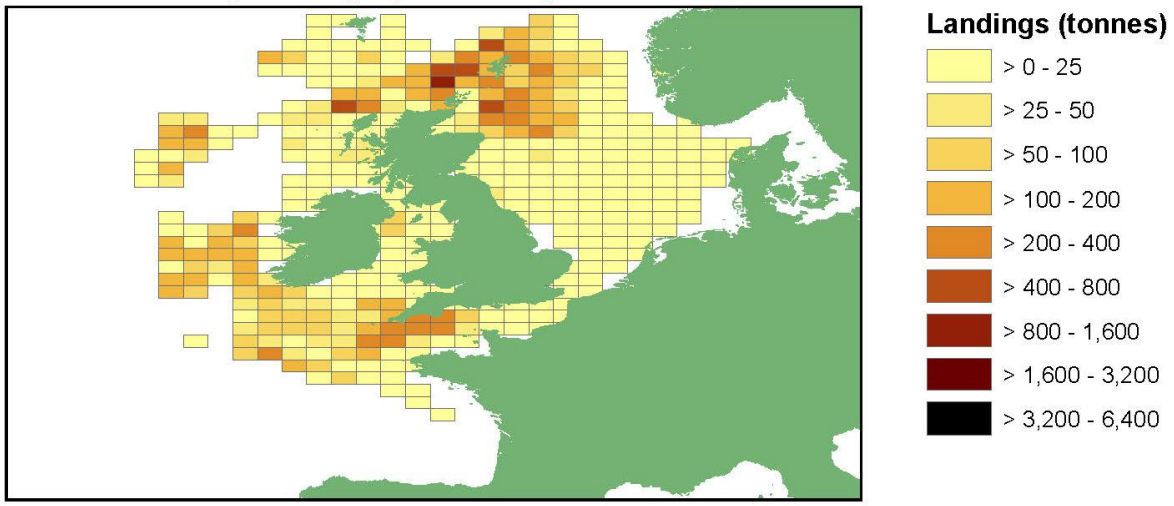


Chart A1.3b: Value of landings by ICES rectangle

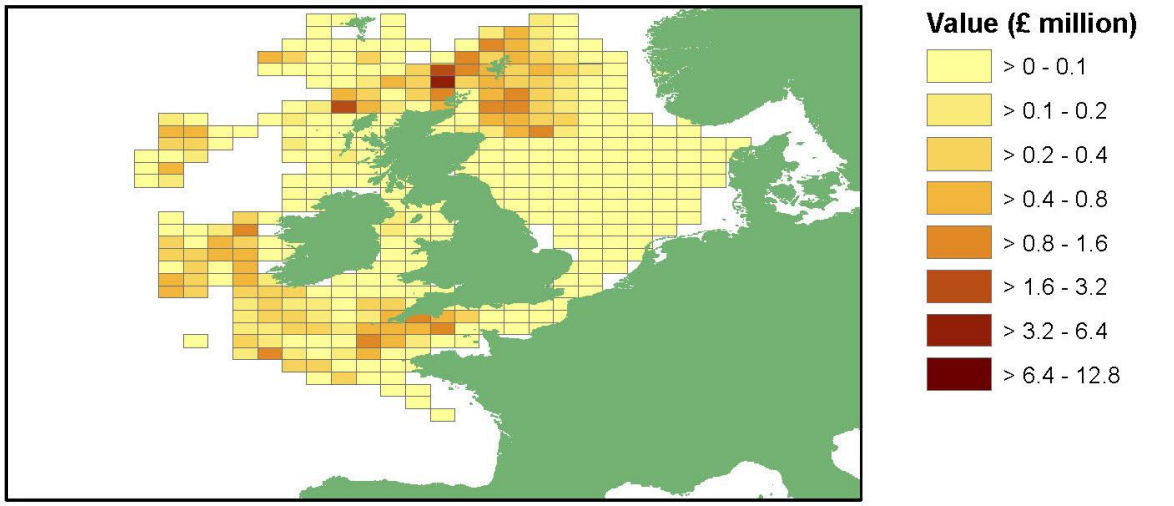


Chart A1.3c: Value of landings per tonne by ICES rectangle

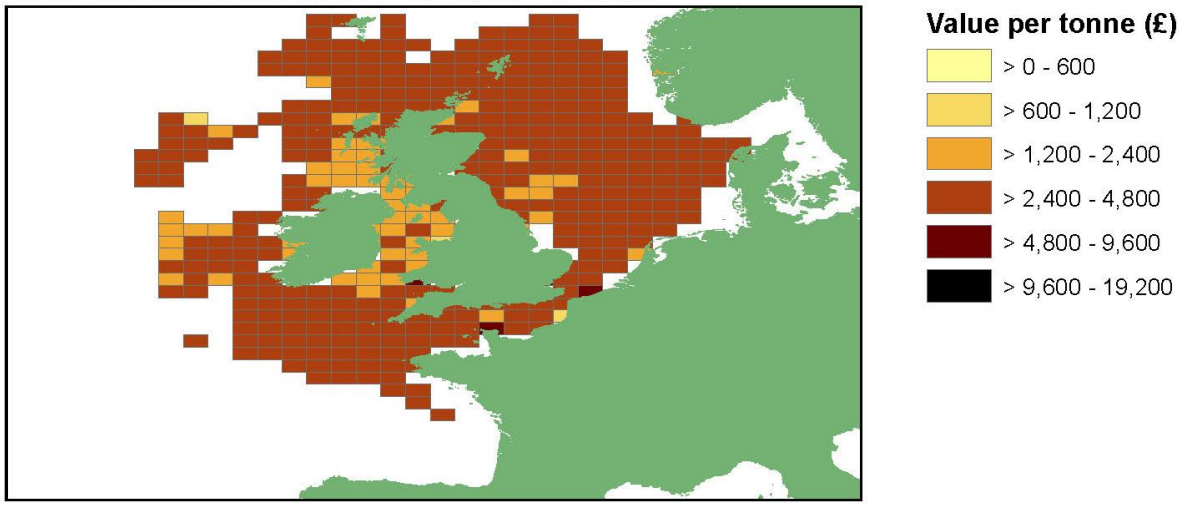


Chart A1.4: Plaice landings by UK vessels by ICES rectangle: 2016

Chart A1.4a: Quantity of landings by ICES rectangle

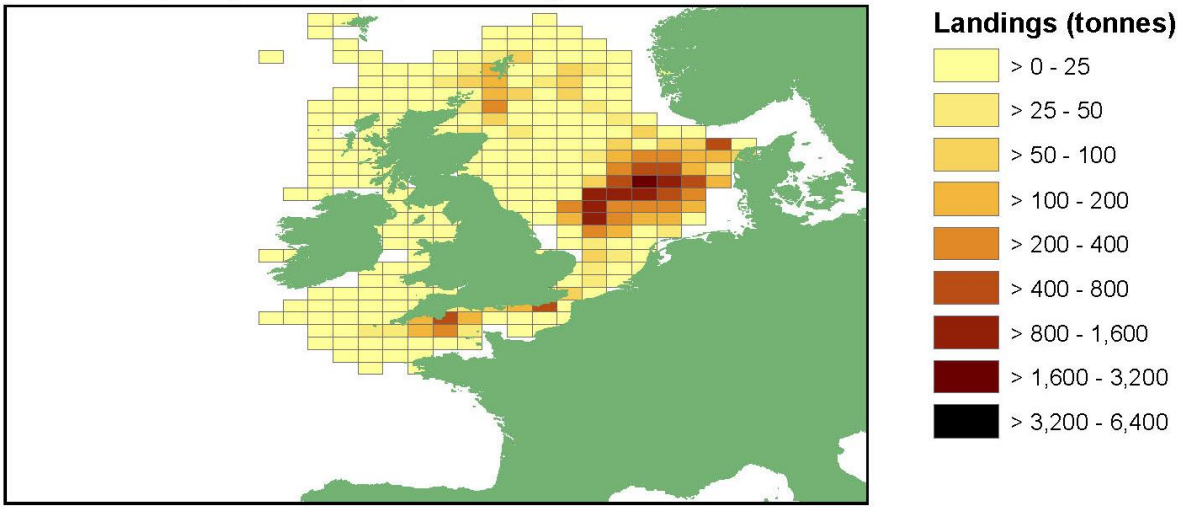


Chart A1.4b: Value of landings by ICES rectangle

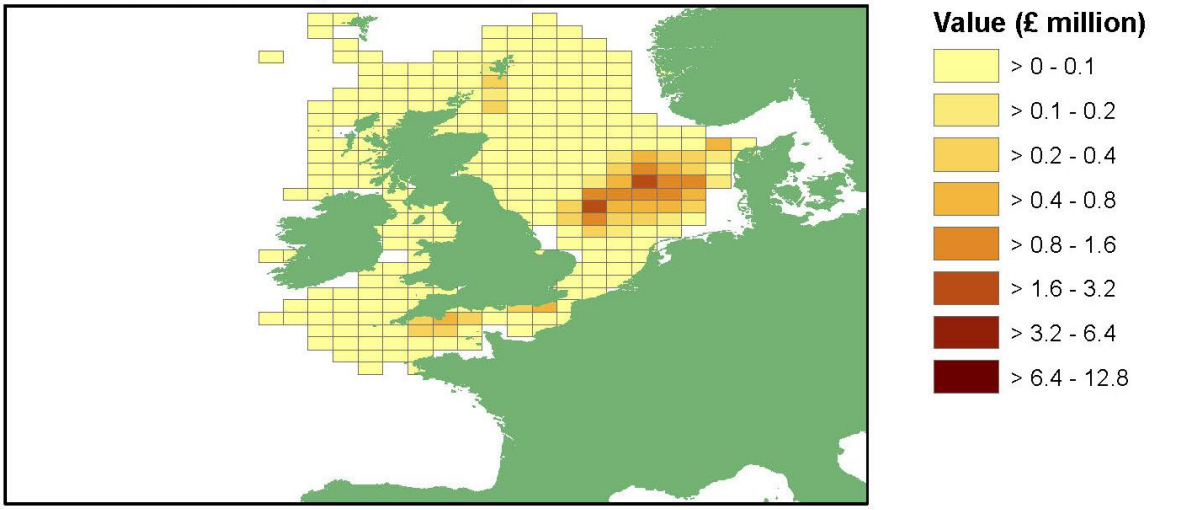


Chart A1.4c: Value of landings per tonne by ICES rectangle

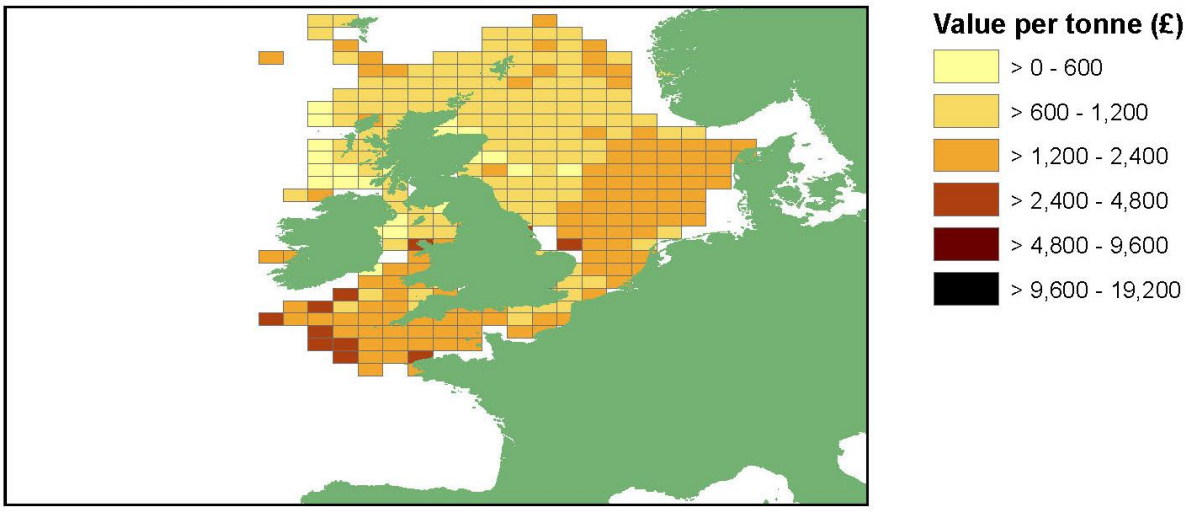


Chart A1.5: Sole landings by UK vessels by ICES rectangle: 2016

Chart A1.5a: Quantity of landings by ICES rectangle

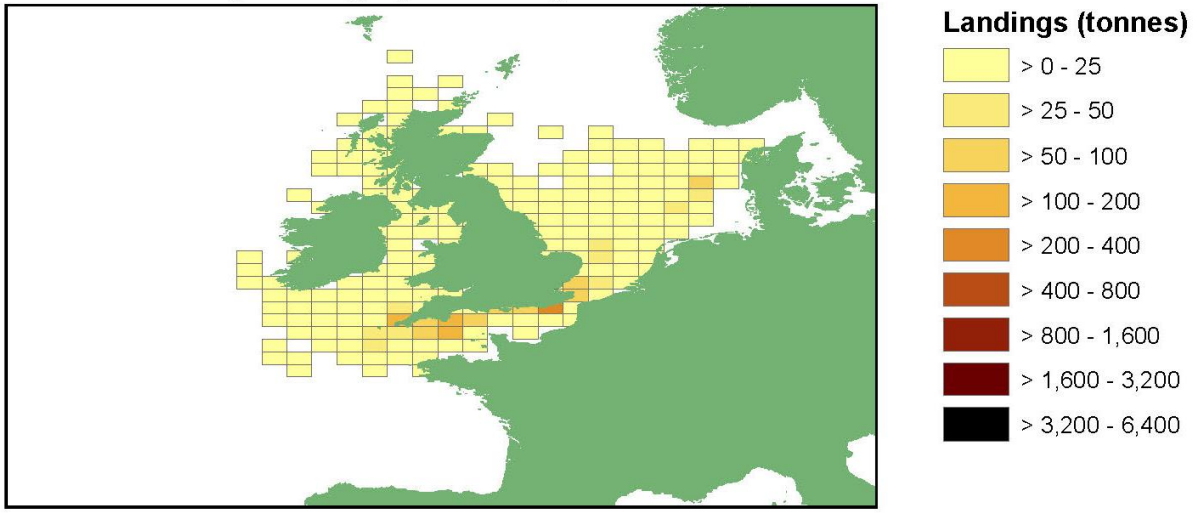


Chart A1.5b: Value of landings by ICES rectangle

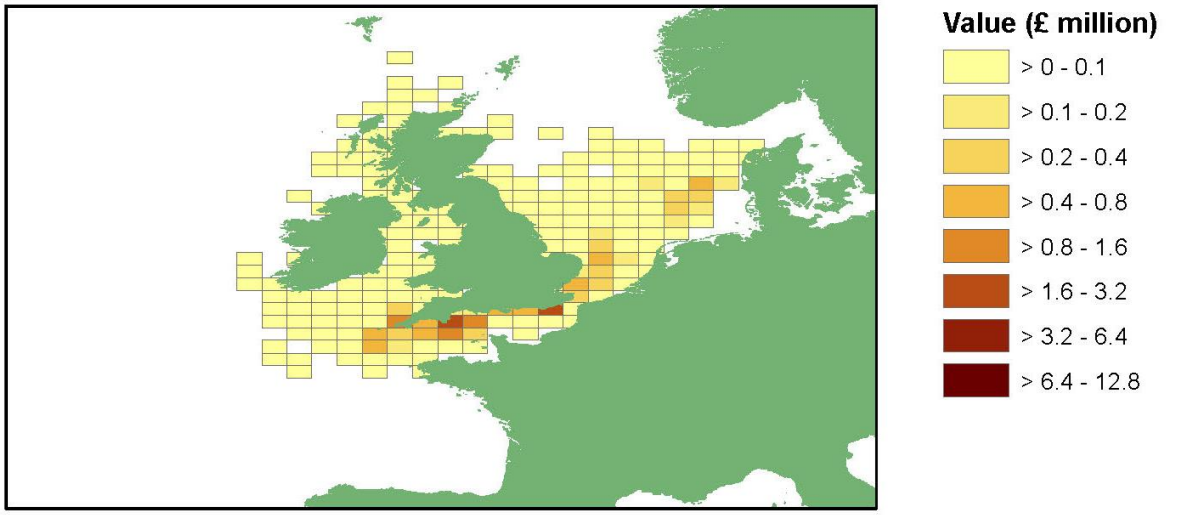


Chart A1.5c: Value of landings per tonne by ICES rectangle

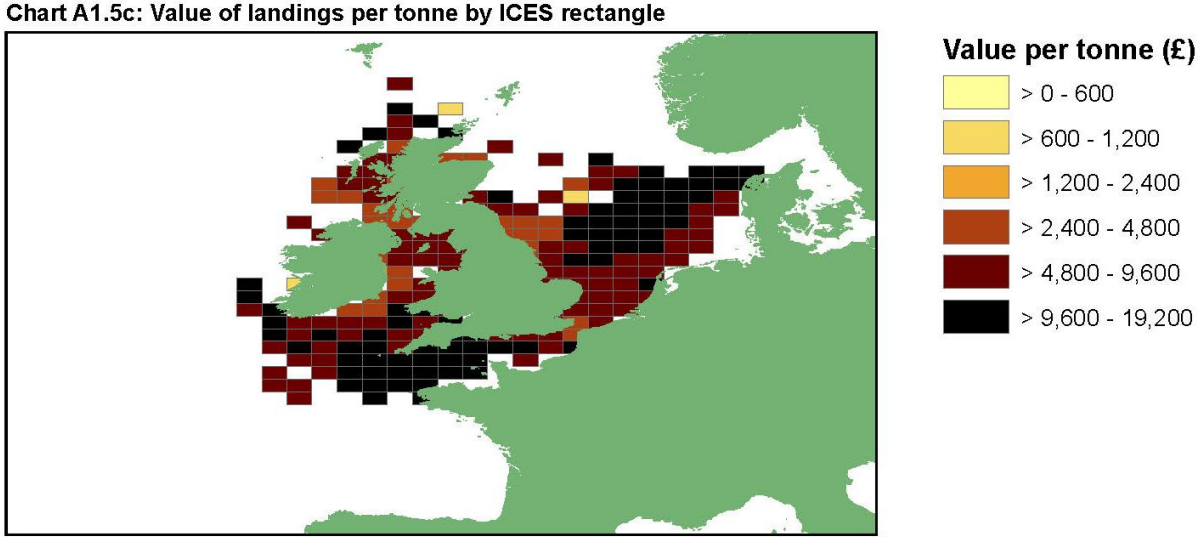


Chart A1.6: Herring landings by UK vessels by ICES rectangle: 2016

Chart A1.6a: Quantity of landings by ICES rectangle

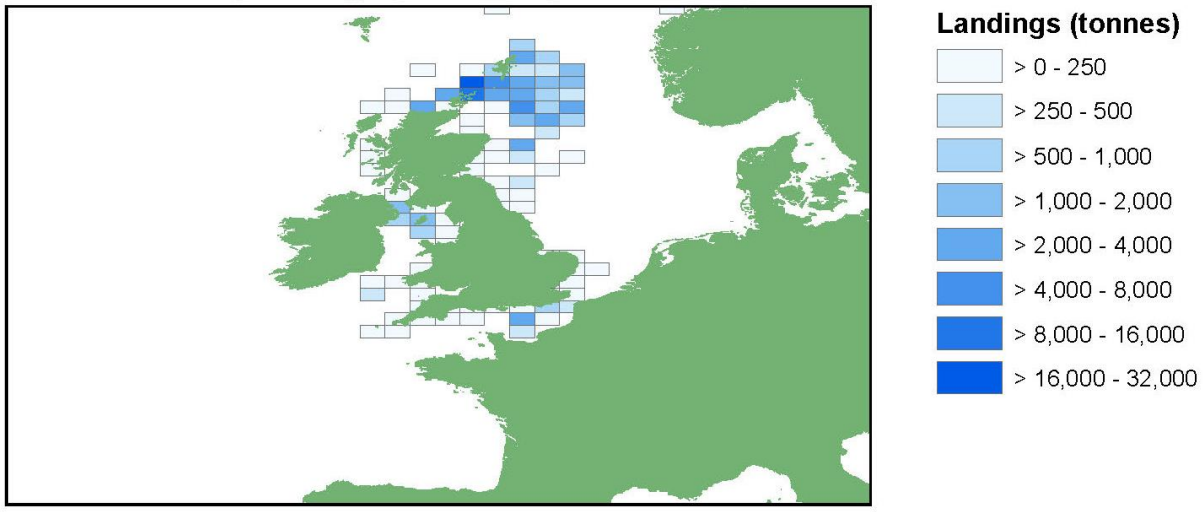


Chart A1.6b: Value of landings by ICES rectangle

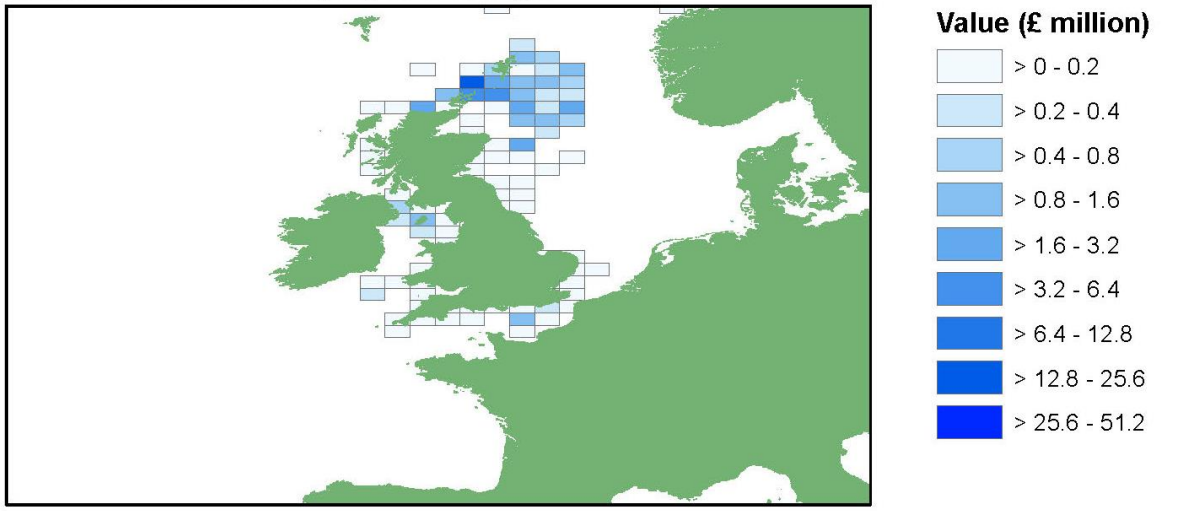


Chart A1.6c: Value of landings per tonne by ICES rectangle

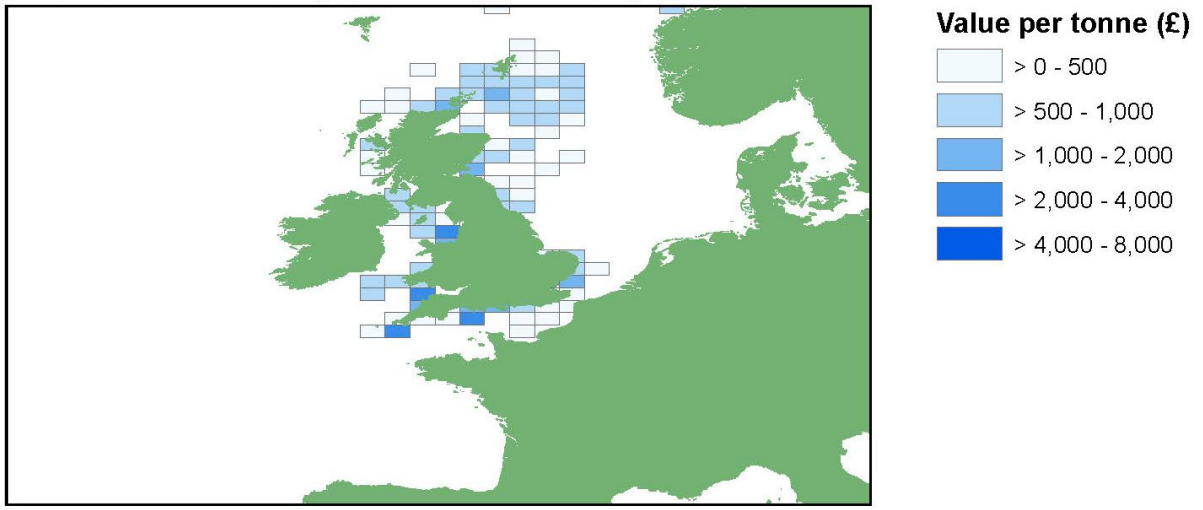


Chart A1.7: Mackerel landings by UK vessels by ICES rectangle: 2016

Chart A1.7a: Quantity of landings by ICES rectangle

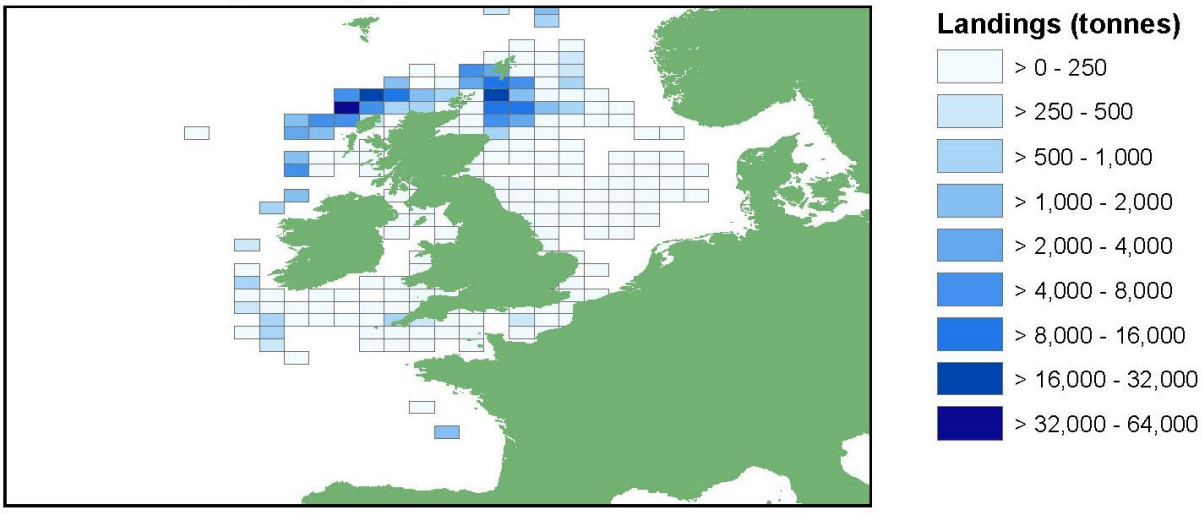


Chart A1.7b: Value of landings by ICES rectangle

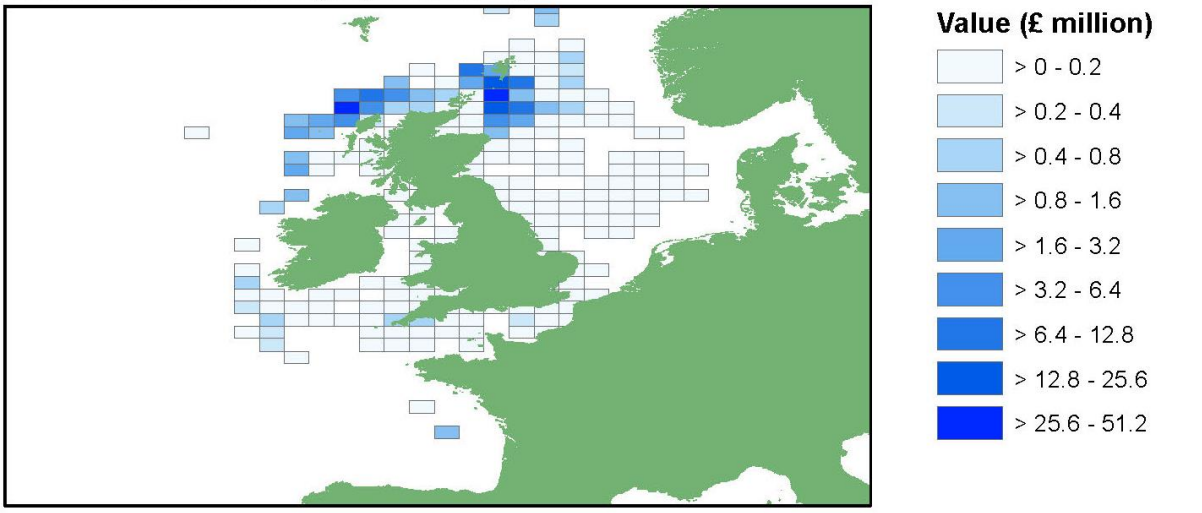


Chart A1.7c: Value of landings per tonne by ICES rectangle

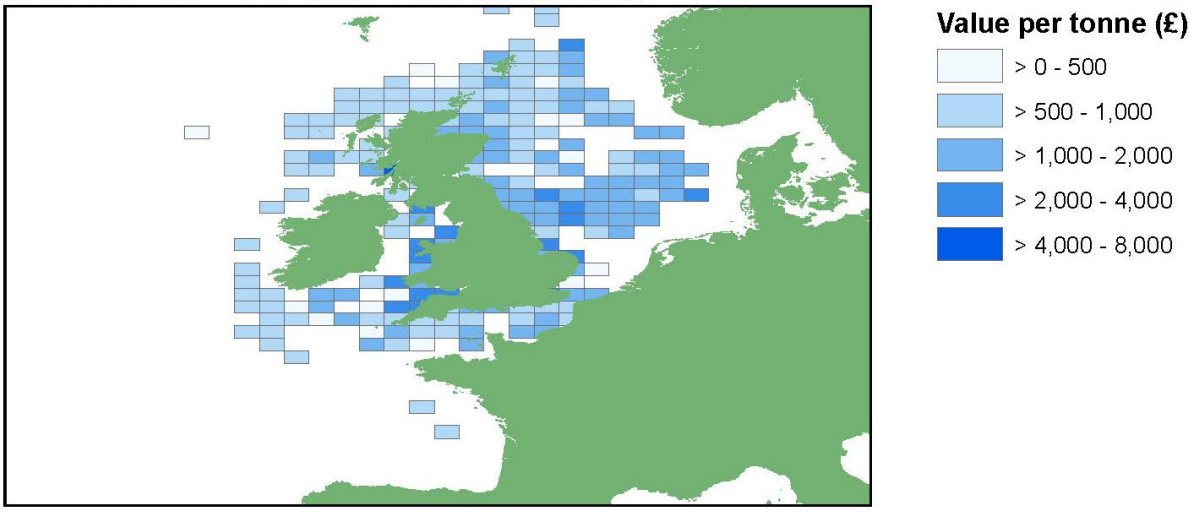


Chart A1.8: Crab landings by UK vessels by ICES rectangle: 2016

Chart A1.8a: Quantity of landings by ICES rectangle

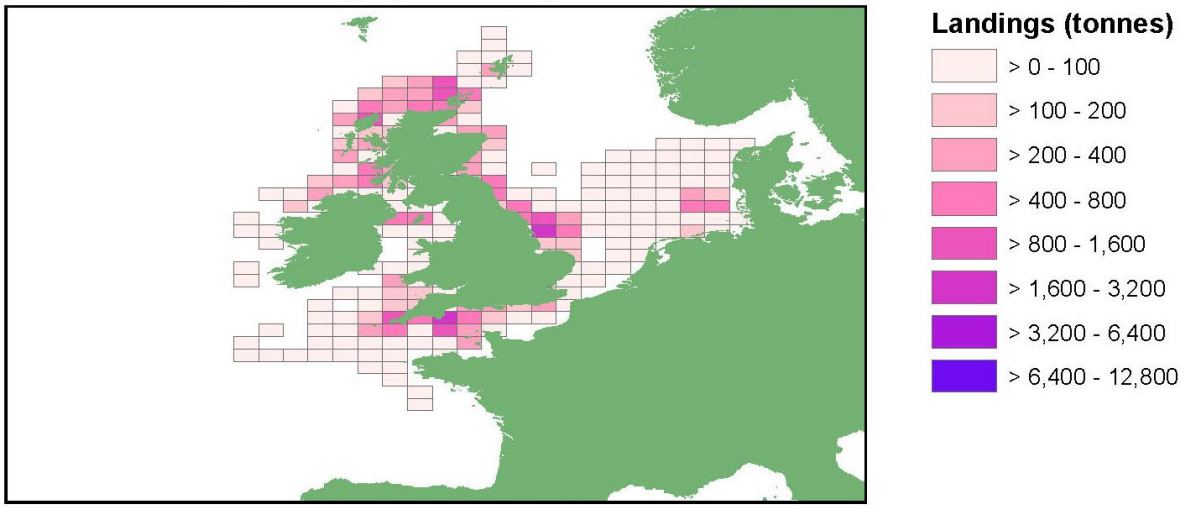


Chart A1.8b: Value of landings by ICES rectangle

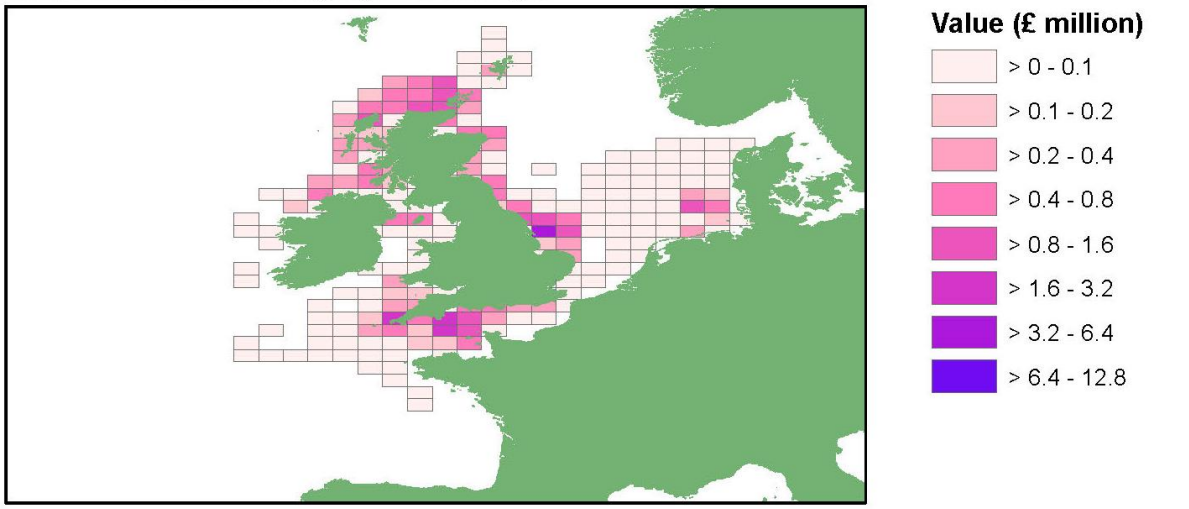


Chart A1.8c: Value of landings per tonne by ICES rectangle

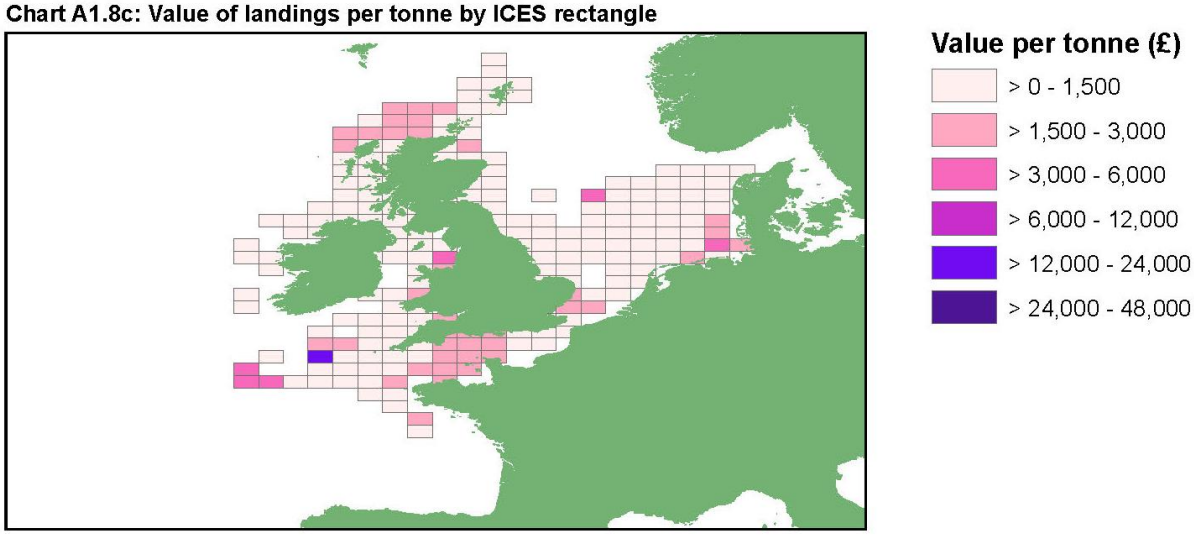


Chart A1.9: Lobster landings by UK vessels by ICES rectangle: 2016

Chart A1.9a: Quantity of landings by ICES rectangle

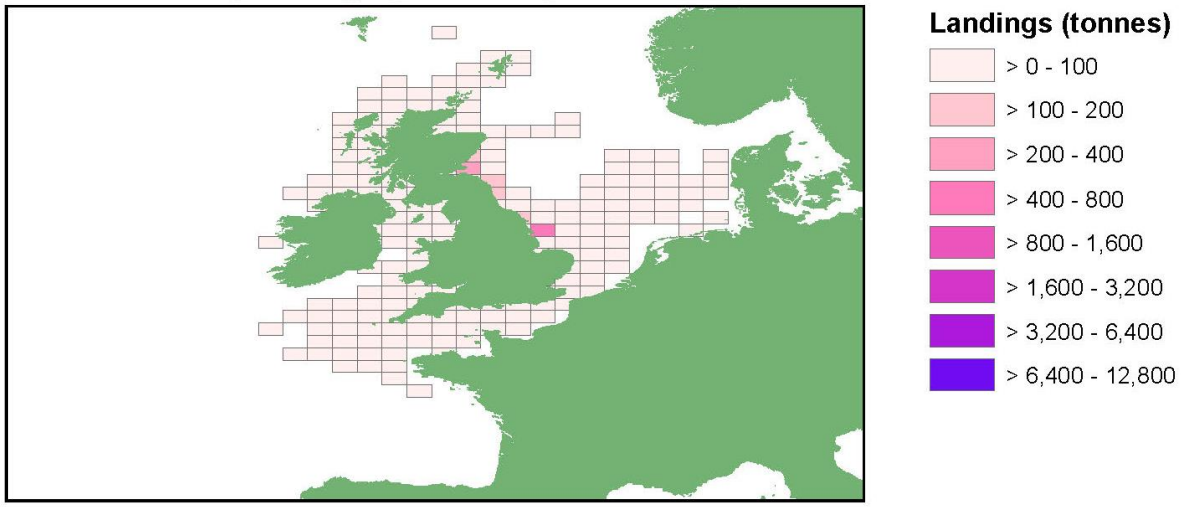


Chart A1.9b: Value of landings by ICES rectangle

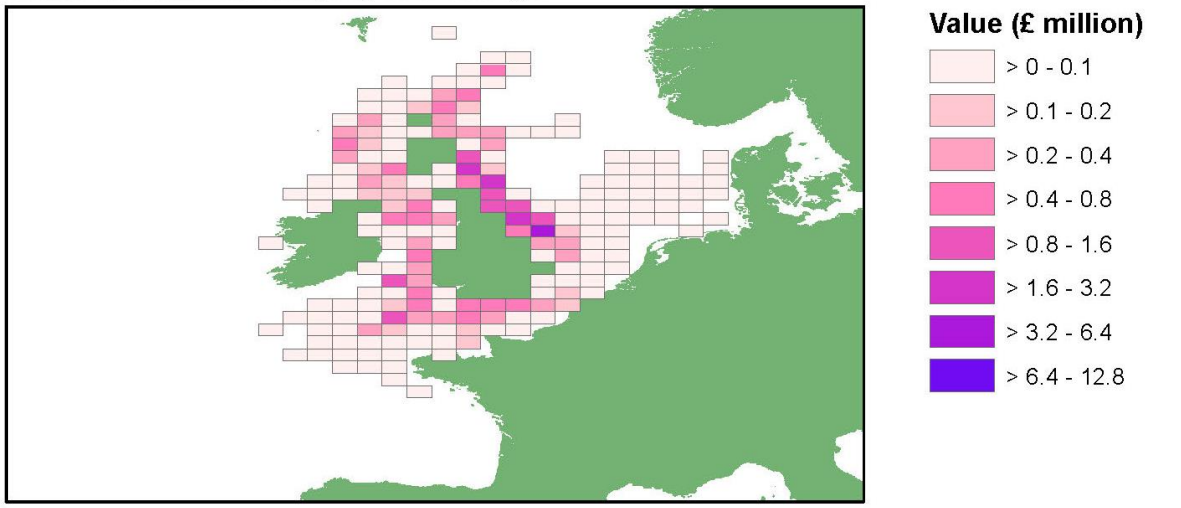


Chart A1.9c: Value of landings per tonne by ICES rectangle

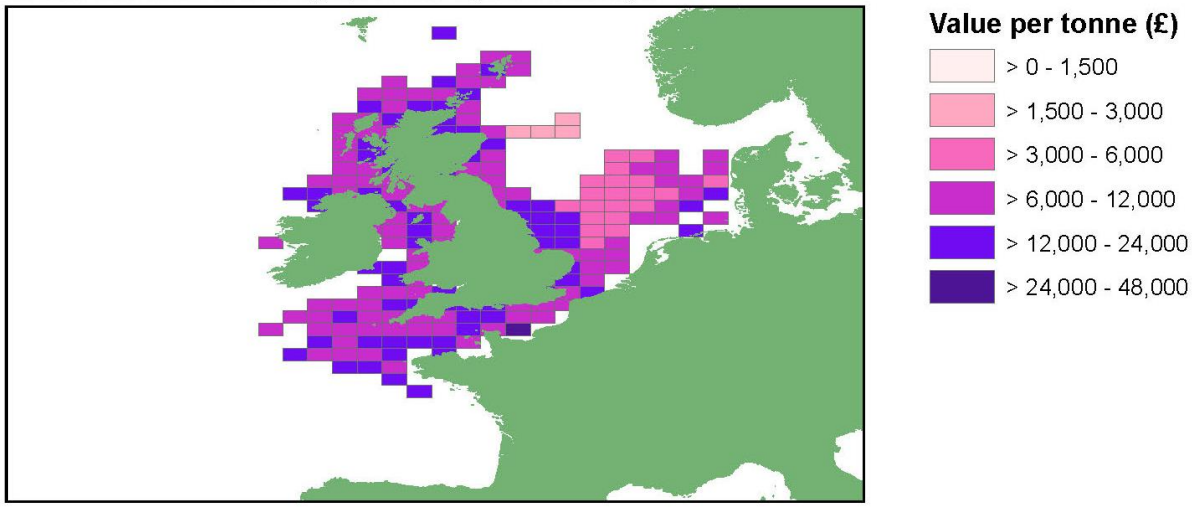


Chart A1.10: Nephrops landings by UK vessels by ICES rectangle: 2016

Chart A1.10a: Quantity of landings by ICES rectangle

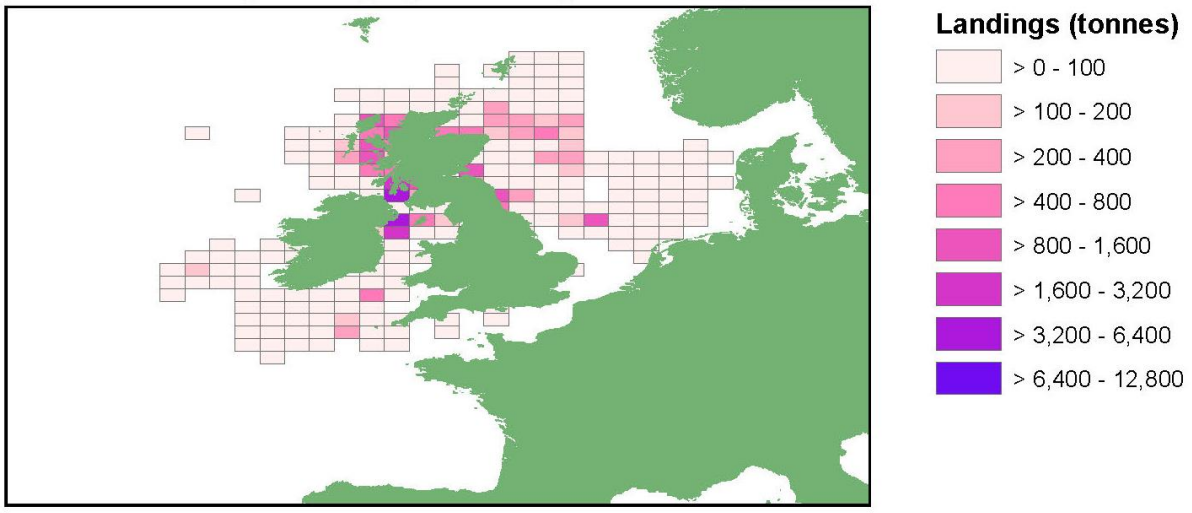


Chart A1.10b: Value of landings by ICES rectangle

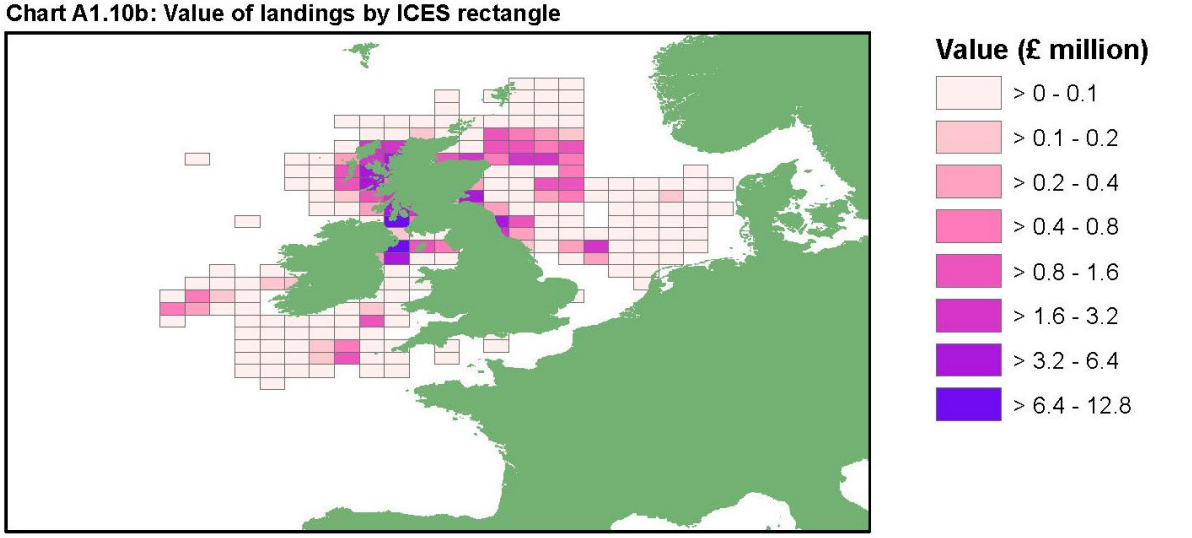


Chart A1.10c: Value of landings per tonne by ICES rectangle

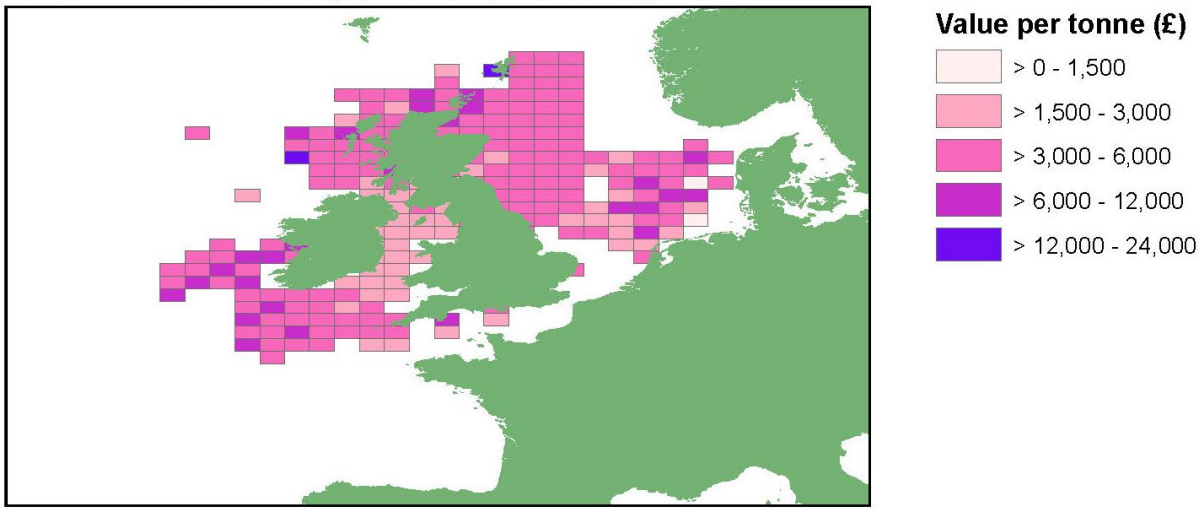


Chart A1.11: Scallop landings by UK vessels by ICES rectangle: 2016

Chart A1.11a: Quantity of landings by ICES rectangle

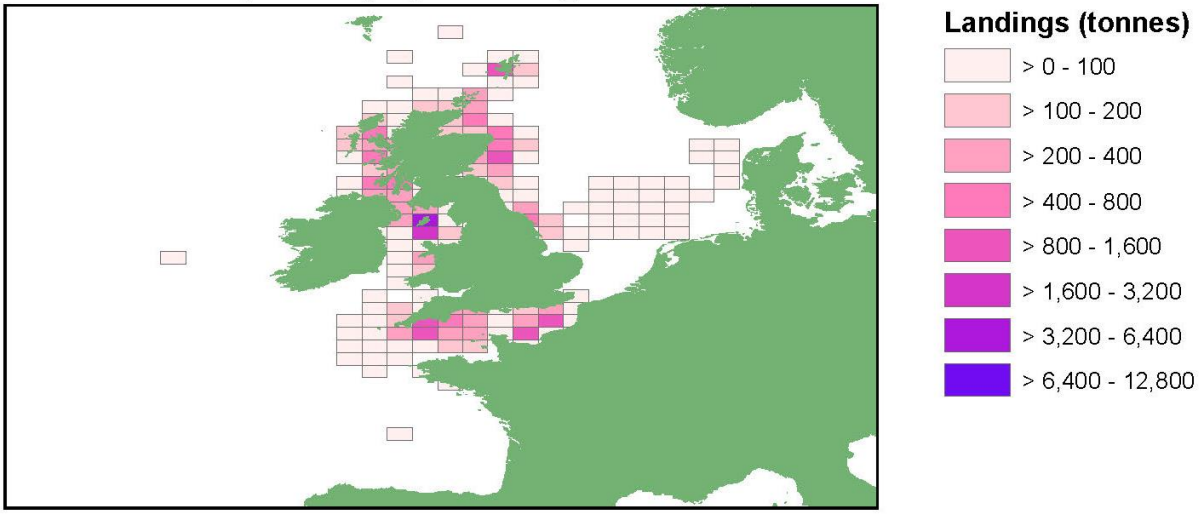


Chart A1.11b: Value of landings by ICES rectangle

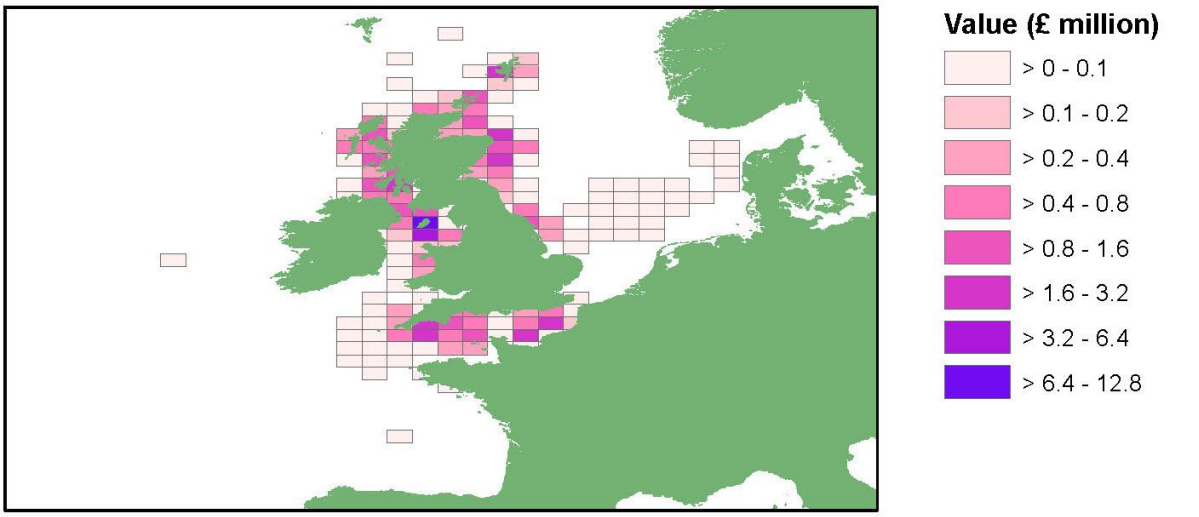


Chart A1.11c: Value of landings per tonne by ICES rectangle

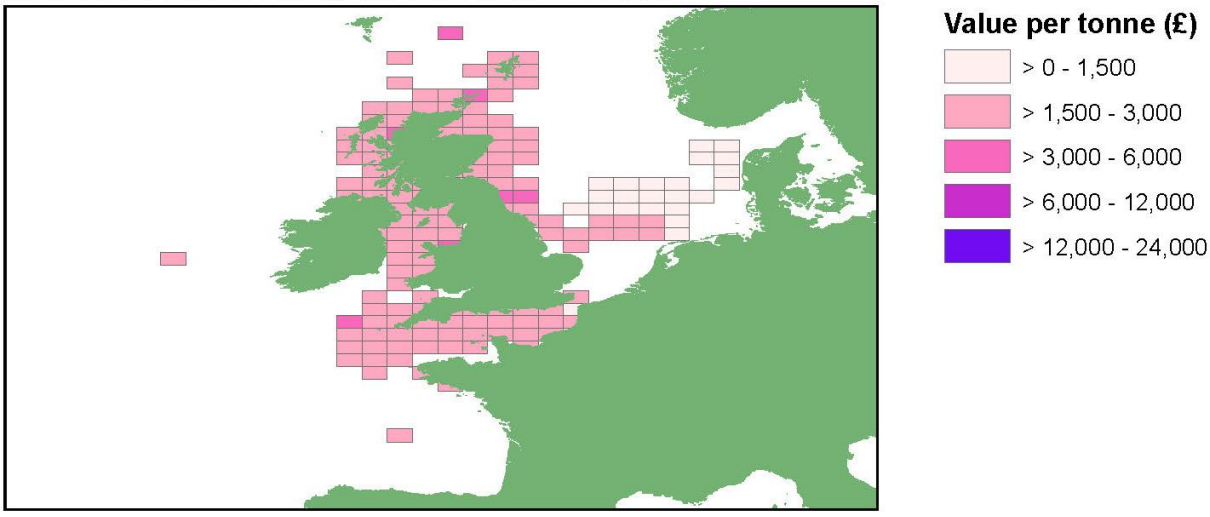
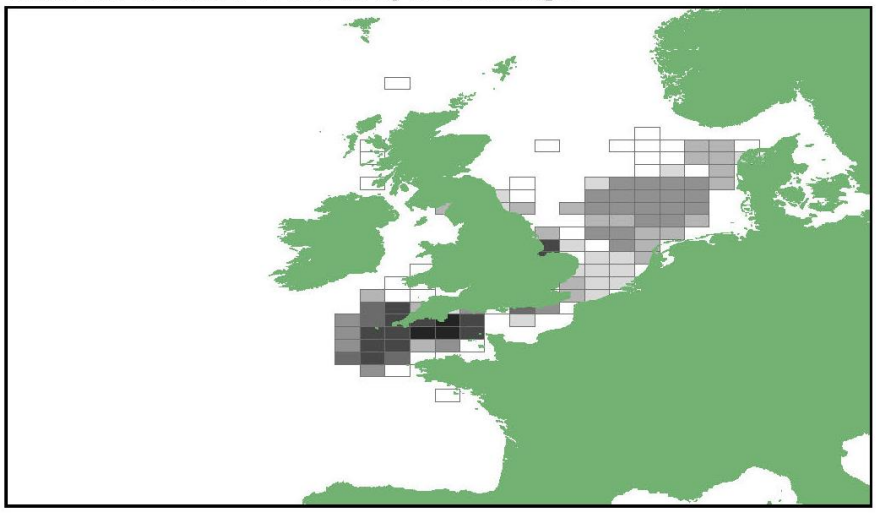


Chart A1.12: Beam trawl effort by UK 10m and over vessels by ICES rectangle: 2016

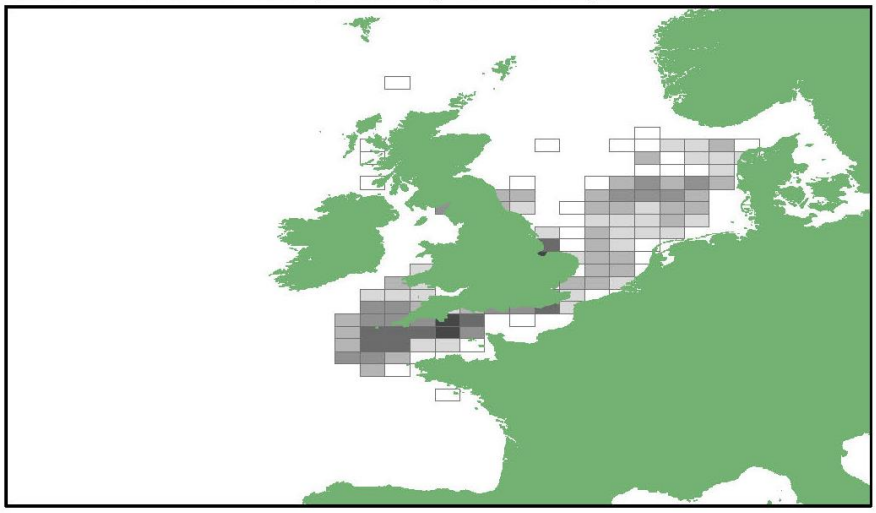
Chart A1.12a: Number of vessels by ICES rectangle



Number of Vessels

- 1
- 2
- 3 - 4
- 5 - 8
- 9 - 16
- 17 - 32
- 33 - 64
- 65 - 128

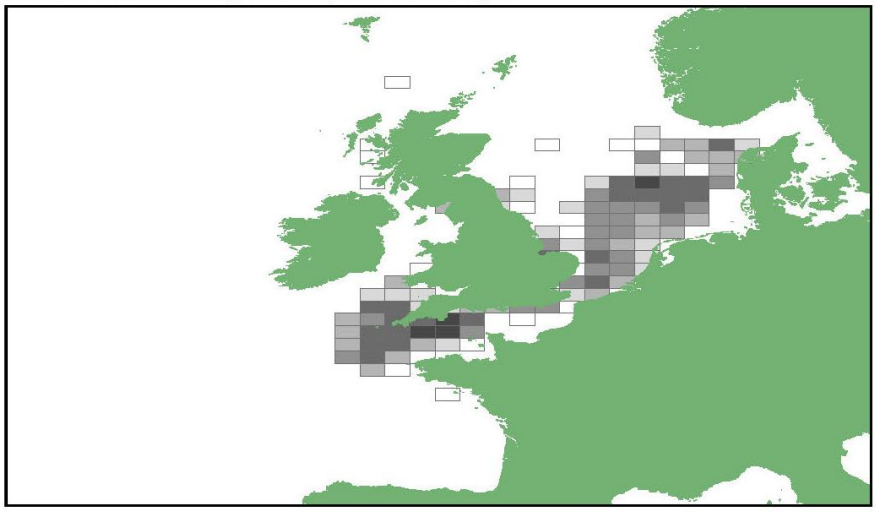
Chart A1.12b: Number of days at sea by ICES rectangle



Number of days at sea

- > 0 - 5
- > 5 - 20
- > 20 - 80
- > 80 - 320
- > 320 - 1,280
- > 1,280 - 5,120
- > 5,120 - 20,480
- > 20,480 - 81,920

Chart A1.12c: kW day units by ICES rectangle



kW Days

- > 0 - 1,500
- > 1,500 - 6,000
- > 6,000 - 24,000
- > 24,000 - 96,000
- > 96,000 - 384,000
- > 384,000 - 1,536,000
- > 1,536,000 - 6,144,000
- > 6,144,000 - 24,576,000

Chart A1.13: Demersal trawl and seine effort by UK 10m and over vessels by ICES rectangle: 2016

Chart A1.13a: Number of vessels by ICES rectangle

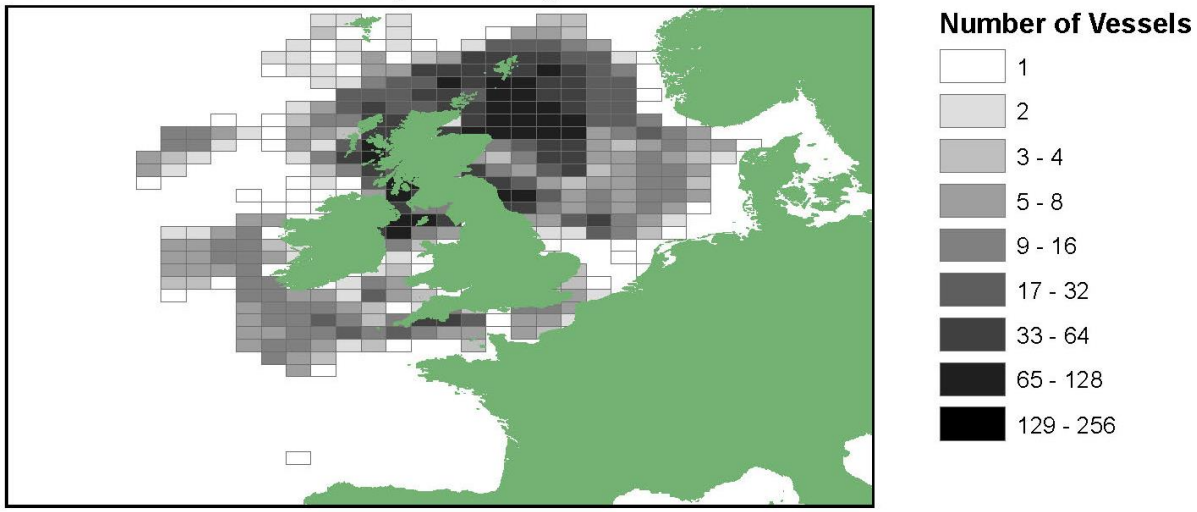


Chart A1.13b: Number of days at sea by ICES rectangle

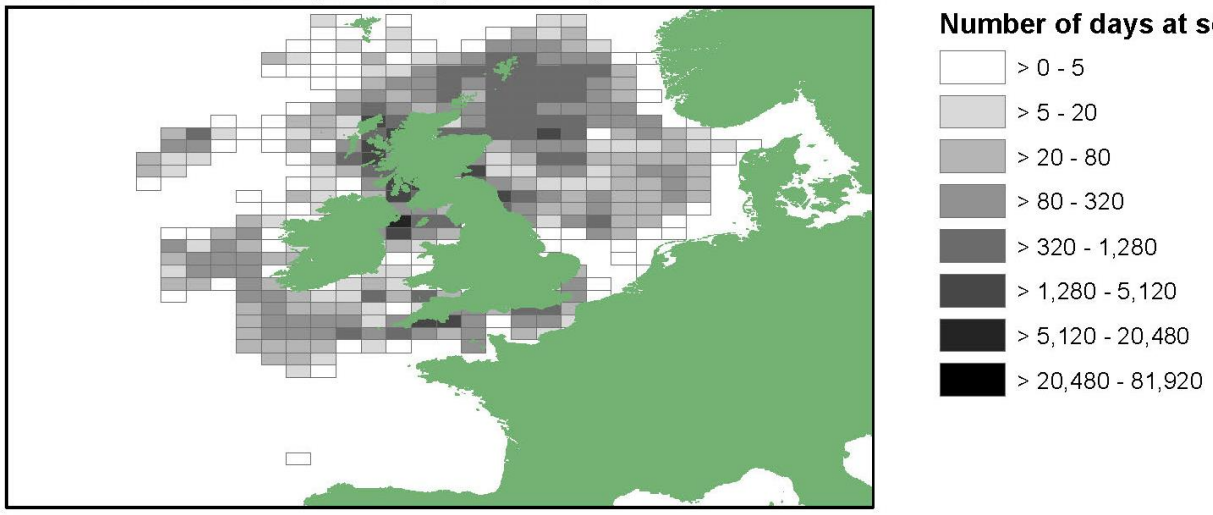


Chart A1.13c: kW day units by ICES rectangle

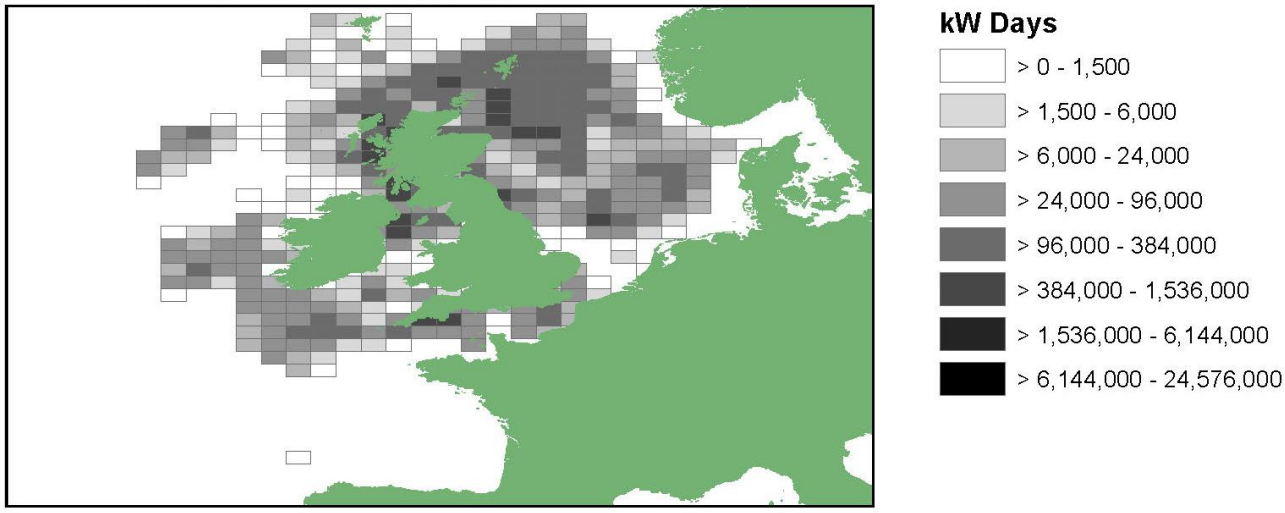


Chart A1.14: Dredges effort by UK 10m and over vessels by ICES rectangle: 2016

Chart A1.14a: Number of vessels by ICES rectangle

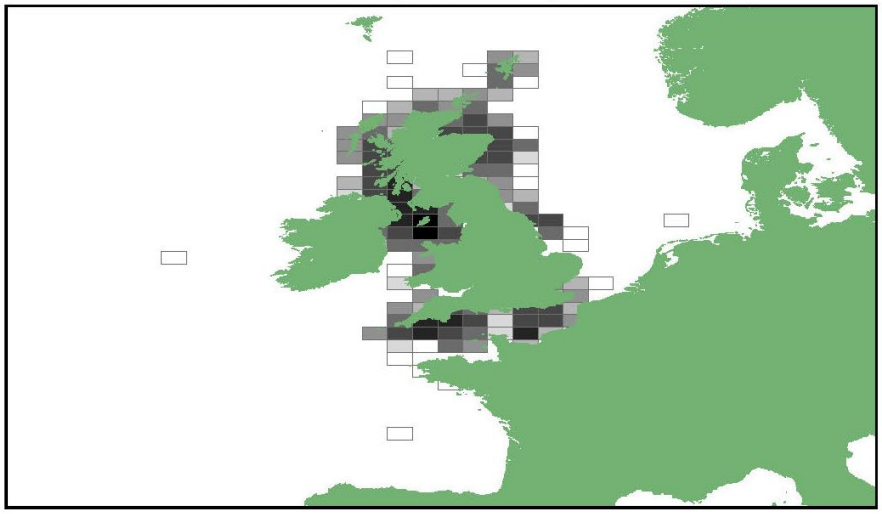


Chart A1.14b: Number of days at sea by ICES rectangle

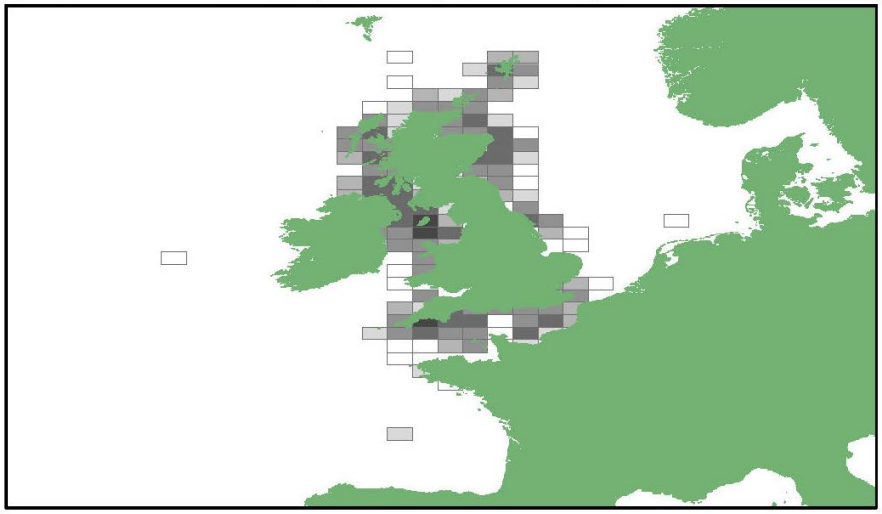


Chart A1.14c: kW day units by ICES rectangle

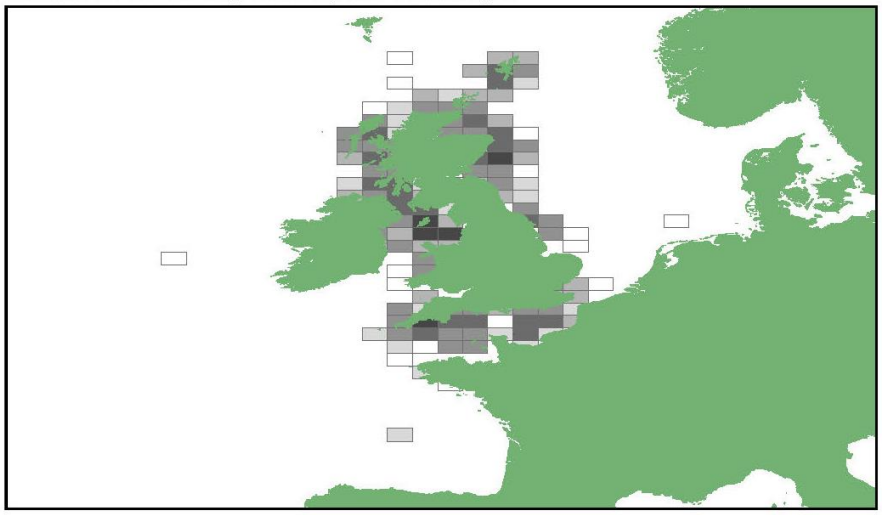


Chart A1.15: Drift and fixed nets effort by UK 10m and over vessels by ICES rectangle: 2016

Chart A1.15a: Number of vessels by ICES rectangle

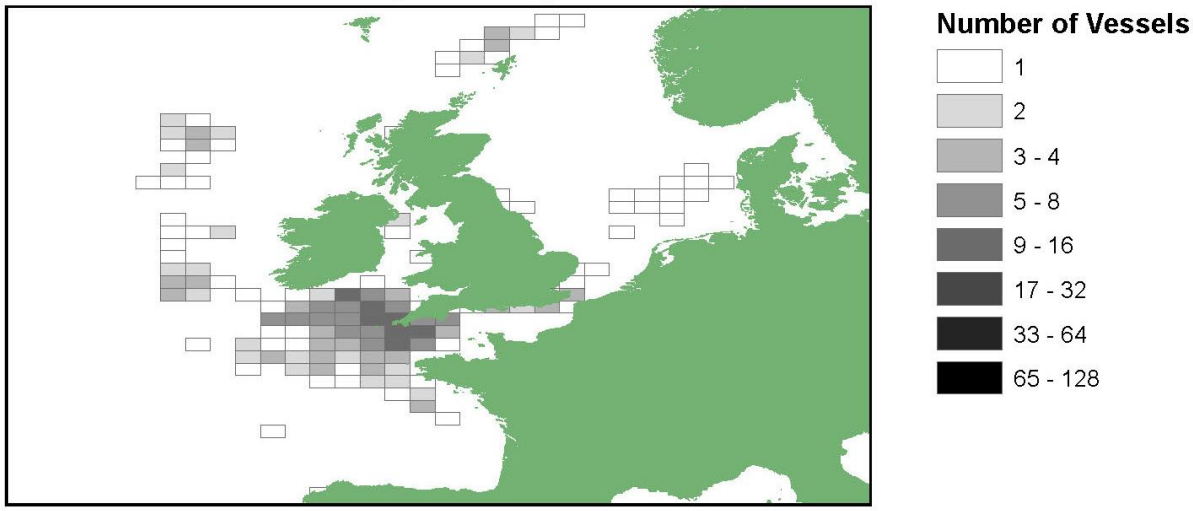


Chart A1.15b: Number of days at sea by ICES rectangle

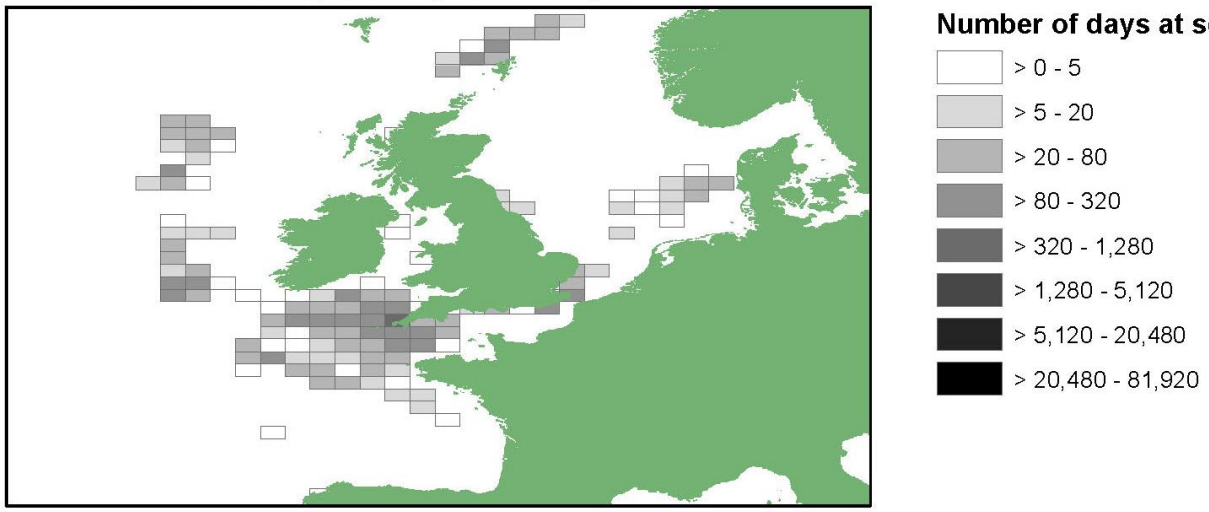


Chart A1.15c: kW day units by ICES rectangle

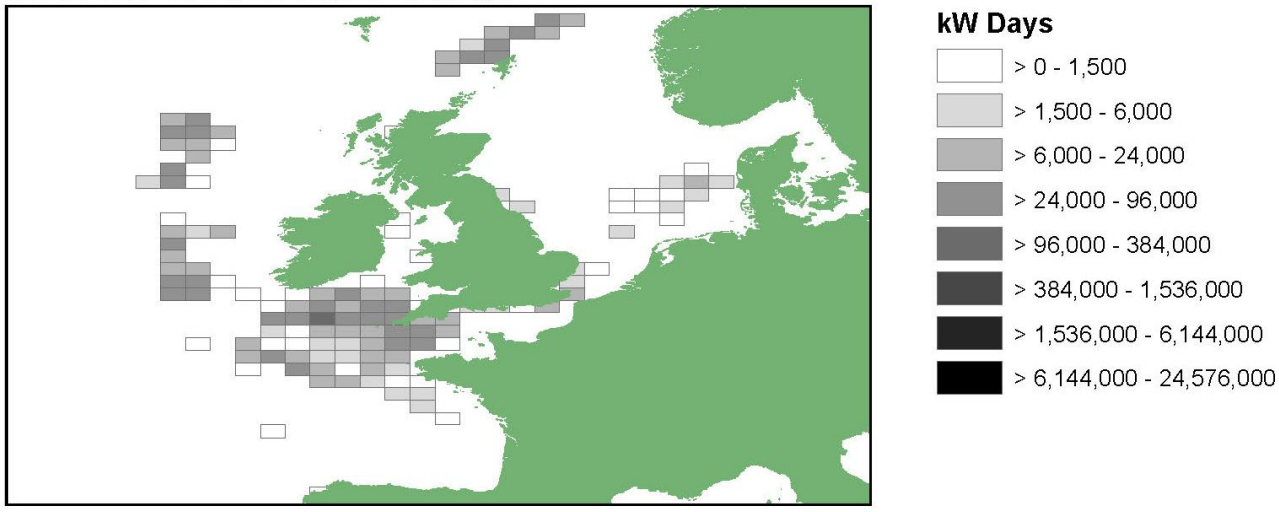


Chart A1.16: Gears using hooks effort by UK 10m and over vessels by ICES rectangle: 2016

Chart A1.16a: Number of vessels by ICES rectangle

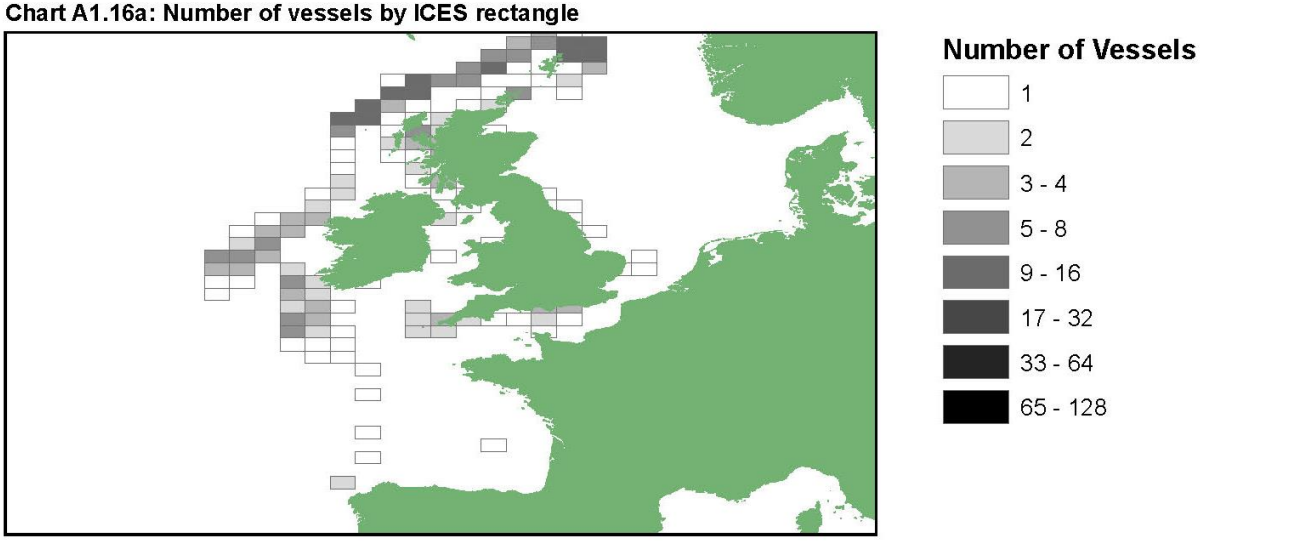


Chart A1.16b: Number of days at sea by ICES rectangle

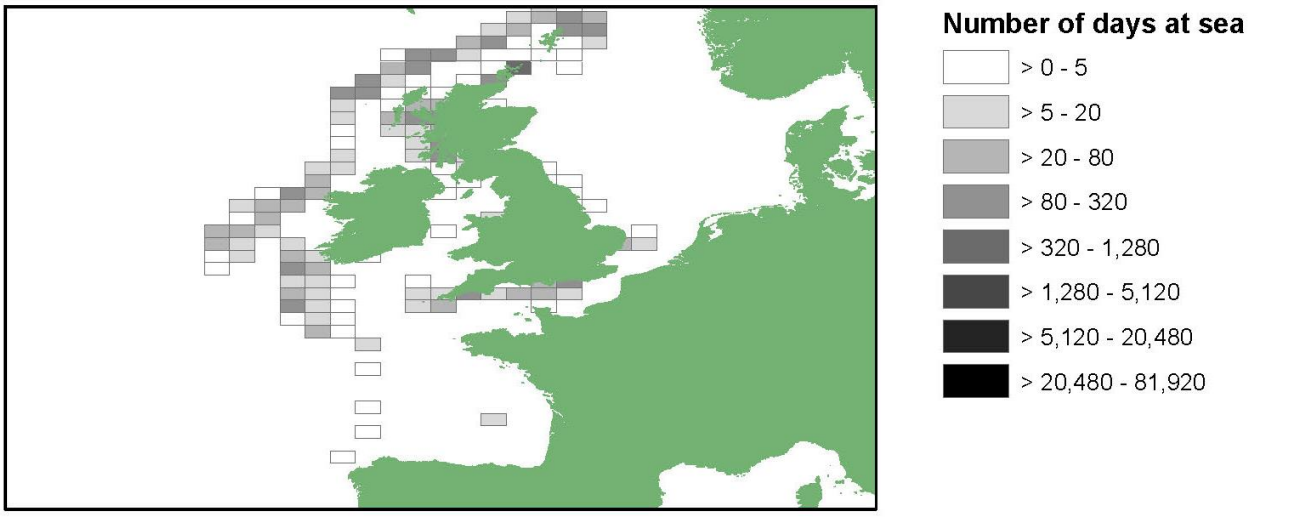


Chart A1.16c: kW day units by ICES rectangle

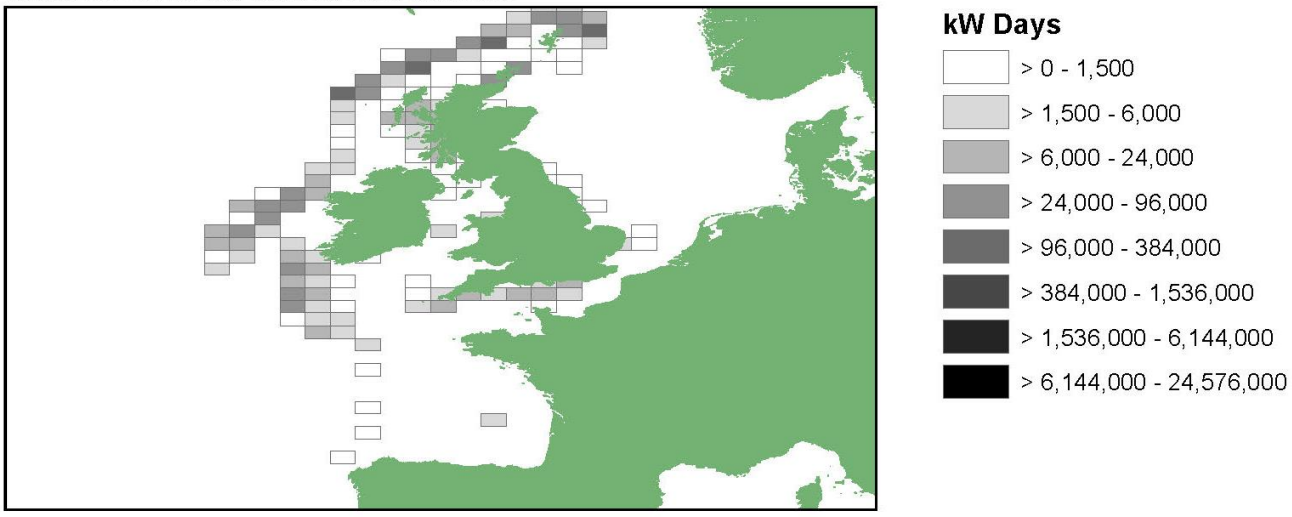


Chart A1.17: Pelagic purse seine & trawl effort by UK 10m and over vessels by ICES rectangle: 2016

Chart A1.17a: Number of vessels by ICES rectangle

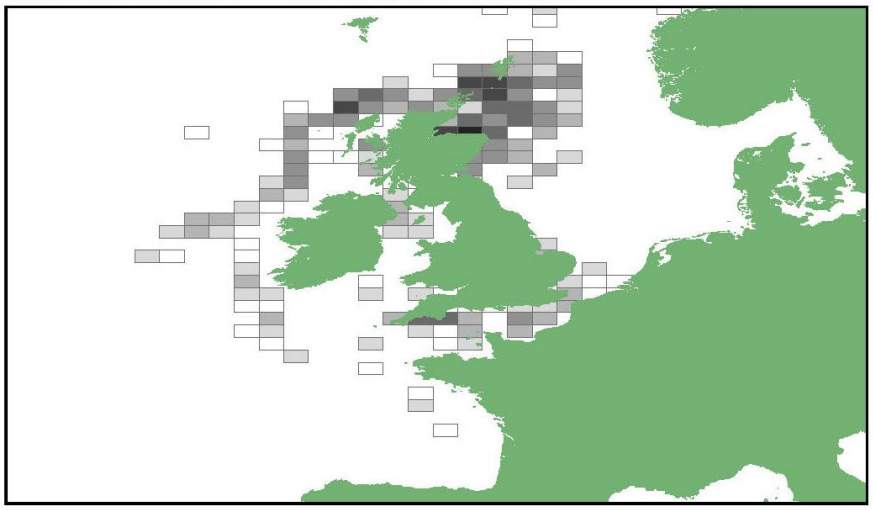


Chart A1.17b: Number of days at sea by ICES rectangle

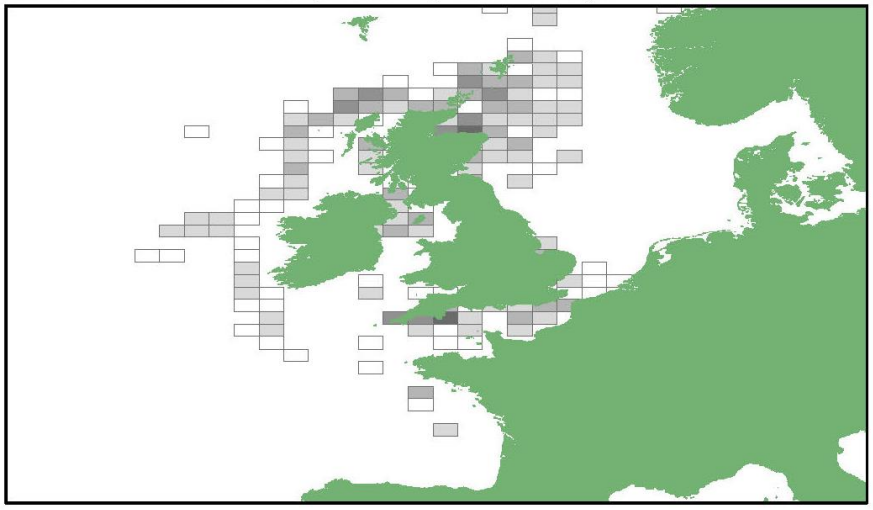


Chart A1.17c: kW day units by ICES rectangle

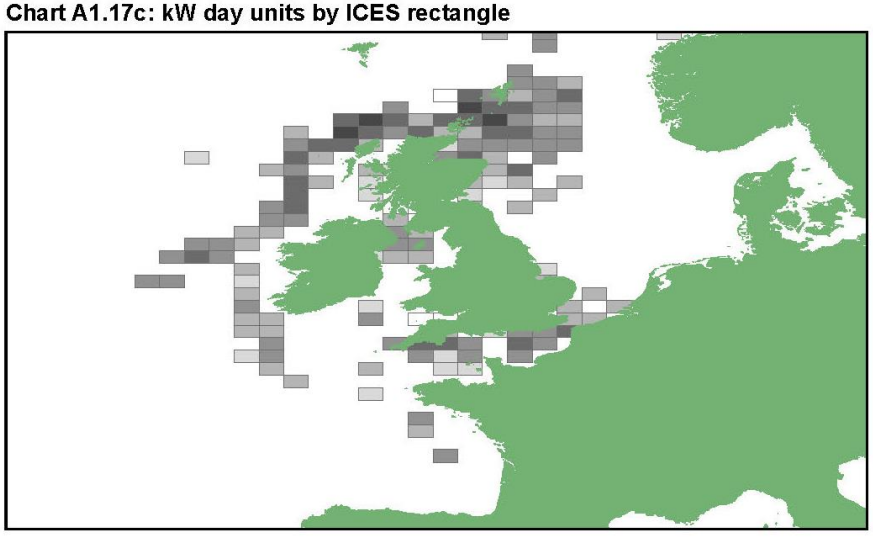


Chart A1.18: Pots and traps effort by UK 10m and over vessels by ICES rectangle: 2016

Chart A1.18a: Number of vessels by ICES rectangle

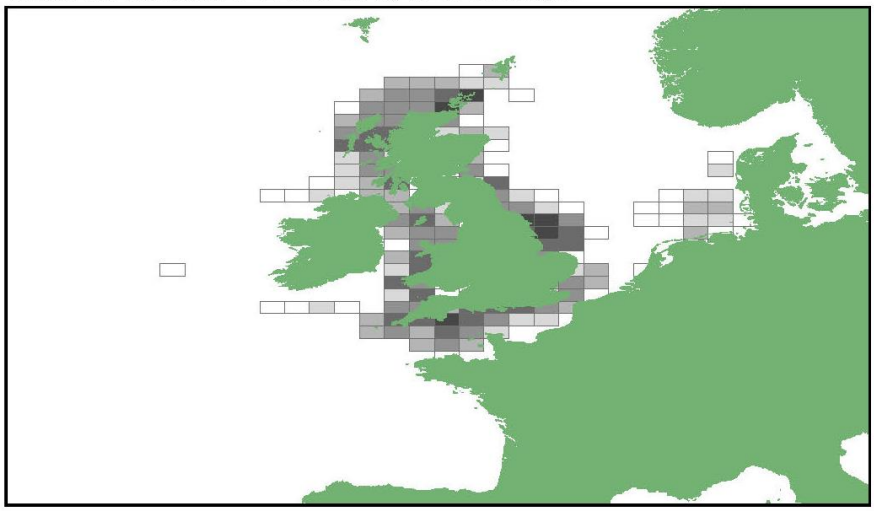


Chart A1.18b: Number of days at sea by ICES rectangle

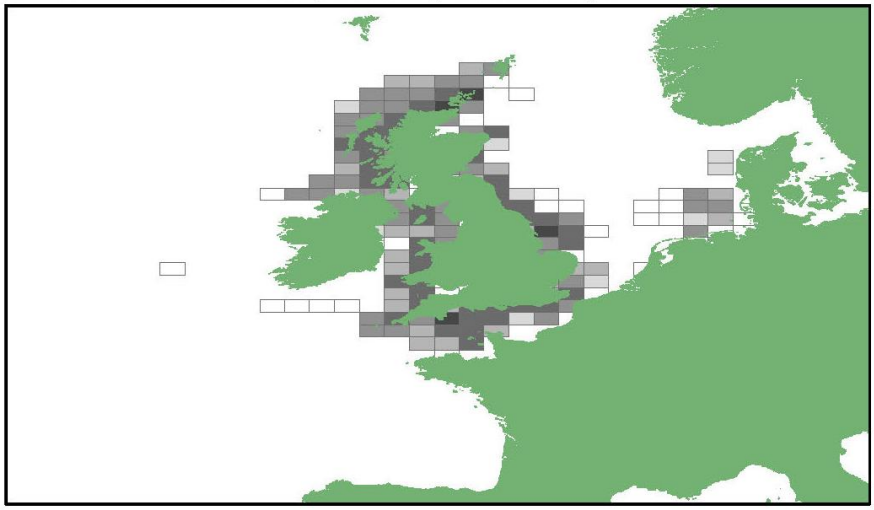
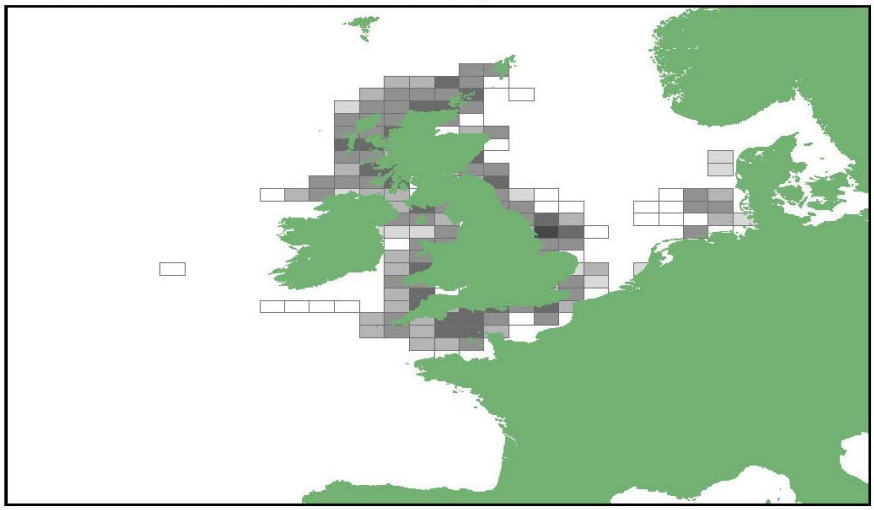


Chart A1.18c: kW day units by ICES rectangle



Appendix 2: Glossary of terms

Administration port

Administration ports are responsible for issuing fishing vessel licences. The coastal office designated as a vessel's administration port is typically the responsible office closest in proximity to a vessel's operational base. A vessel's administration port may differ from its registration port.

Biologically Sensitive Area (BSA)

The Biologically Sensitive Area is a sea area in which restrictions exist on fishing effort by vessels 10 metres or over targeting certain species. The region is defined in Article 6 of Council Regulation (EC) No 1954/2003. It lies within ICES sub-area VII and constitutes part of the Western Waters.

Chain volume measure

A chain volume measure is an index number from a chain index of quantity (a chain index is an index constructed by linking two or more index series of different base periods or different weights). The index number for the reference period of the index may be set equal to 100 or to the estimated monetary value of the item in the reference period.

Cod Recovery Zone (CRZ)

The Cod Recovery Zone (CRZ) is a group of sea areas in which restrictions exist on fishing effort by vessels 10 metres or over using certain regulated gears. The CRZ comprises four areas: Kattegat, Irish Sea (ICES division VIIa), North Sea (ICES division IIIa excluding Kattegat; ICES sub-area IV; EU waters of ICES division IIa; ICES division VIId) and West of Scotland (ICES division VIa and EU waters of ICES division Vb).

The regulated gears are:

- Beam trawls of mesh:
  - equal to or larger than 120 mm (BT1)
  - equal to or larger than 80 mm and less than 120 mm (BT2)
- Gill nets, entangling nets (GN1)
- Trammel nets (GT1)
- Longlines (LL1)
- Bottom trawls and seines of mesh:
  - equal to or larger than 100 mm (TR1)
  - equal to or larger than 70 mm and less than 100 mm (TR2)
  - equal to or larger than 16 mm and less than 32 mm (TR3)

Consumer Price Index (CPI)

The Consumer Price Index (CPI) measures the average change in the prices of goods and services bought for the purpose of consumption in the UK. It is calculated according to a different formula than the Retail Price Index (RPI), and has narrower commodity coverage. The RPI excludes very high and low income households and hence the CPI has wider population coverage than the RPI.

Demersal

The term demersal fish covers species living on or near the sea bed.

Engine power

Engine power refers to a measure of the power of a fishing vessel's engine (in kW). Where an engine has been permanently de-rated

	and this has been declared to the Register of Shipping and Seamen (RSS), this is the de-rated engine power; otherwise, it is the maximum continuous engine power (MCEP) declared to the RSS. Where neither of these are available the registered engine power is used.
Exports	Exports consist of the outward movement of goods produced by businesses in the UK, plus goods, which after importation, move outward from bonded warehouses or free zones without having been transformed i.e. both exports and re-exports. Export statistics exclude fish caught by domestic fishing craft, whether or not processed on board, landed in foreign ports. In UK export statistics, domestic fishing vessels are defined as vessels in UK economic ownership; these may differ from vessels registered in the UK.
Fishing areas	Fishing areas are defined by international convention. The immediate waters around the UK are subdivided into ICES sub-areas IV (North Sea), VI (West of Scotland) and VII and its divisions the Irish Sea, VIIa; Celtic Sea, VIIg,h; Bristol Channel, VIIf; and the English Channel, VIId,e. See Appendix 3.
Fishing capacity	Fishing capacity is the physical dimension of fishing vessels measured in gross tonnage (GT), or – in engine power terms – kilowatts (kW). See definitions in this glossary.
Fishing effort	Fishing effort is an aggregate measure of the activity of fishing vessels in a given sea area. It may be measured as the total time spent at sea (in hours or days), as the sum of the products of fishing capacity and time at sea for each vessel (in GT days) or as the sum of the products of engine power and time at sea for each vessel (in kW days).
Fishing mortality	Fishing mortality is the proportion of a stock killed/dying each year as a result of fishing activity.
Fish flour	Fish flour is powdered fish meal.
Fish meal	Fish meal is dried, ground fish (chiefly fish offal). It provides a dry, storable product that is frequently used in animal feeds.
Fish oil	Fish oils are oils extracted from fish, typically pelagic species such as herring and mackerel.
Fish preparations	Fish preparations refer to fish that have been prepared using one of the following techniques: fresh or chilled, frozen, salted, in brine, dried or smoked, prepared or preserved.
Fish producer organisation (FPO)	Fish producer organisations are institutions set up in accordance with EC regulations to improve the market for their members' catches. FPOs may also be granted responsibility by Fisheries Administrations for the management of fish quotas in addition to this function.
Fish products	Food products manufactured from fish such as fish meal, fish flour and fish oil.
Fixed gears	Fixed gears are mainly used for demersal species. They are normally vertically hung curtains of netting which enmesh or entangle the fish, fixed to the seabed with anchors or weights and held upright with floats.

Gross Domestic Product (GDP)	Gross Domestic Product (GDP) is a key indicator of the state of the whole economy. It is related to Gross Value Added (GVA) by adding the taxes on products and subtracting the subsidies from GVA. GDP is available at a whole economy level only, whereas GVA is available by industry sector.
Gross Registered Tonnage (GRT)	Gross Registered Tonnage (GRT) is a general term applied to a range of volumetric measures of vessel capacity.
Gross Tonnage (GT)	Gross Tonnage (GT) is a volumetric measurement of vessel capacity under the rules of the ITC69 (International Tonnage Convention). By the end of 2003 all UK fishing vessels over 15m overall length were required to have their tonnage measured on this basis.
Gross Value Added (GVA)	Gross Value Added (GVA) measures the contribution to the economy of each individual producer, industry or sector in the United Kingdom. GVA is used in the estimation of Gross Domestic Product (GDP), a key indicator of the state of the whole economy. Adding the taxes on products and subtracting the subsidies from GVA gives GDP. GDP is available at a whole economy level only, whereas GVA is available by industry sector.
The International Council for the Exploration of the Sea (ICES)	The International Council for the Exploration of the Sea (ICES) coordinates and promotes marine research on oceanography, the marine environment, the marine ecosystem, and on living marine resources in the North Atlantic. See also: Fishing areas.
Imports	Imports consist of all goods moving into a country, including goods for domestic consumption and goods into bonded warehouses or free zones. In accordance with the internationally recommended practice, import statistics include fish caught by foreign fishing craft, whether or not processed on board, landed in domestic ports. In UK import statistics, foreign fishing vessels are defined as vessels in foreign economic ownership; these may differ from vessels registered abroad. Only goods for which the final destination is the UK are included in import statistics.
Landed Price Index (LPI)	The Landed Price Index measures the average change in the prices at first sale of fish landed by UK vessels into the UK.
Landed weight	Mass (or weight) of a product at the time of landing, regardless of the state in which it has been landed. Landed fish may be whole, gutted and headed or filleted.
Live weight	The mass or weight of a product, when removed from the water.
National Statistics	'National Statistics' are a subset of official statistics which have been assessed and certified by the UK Statistics Authority as compliant with its Code of Practice for Official Statistics. The label currently comprise three basic types: • legacy 'National Statistics' – those statistical products which obtained their designation as 'National Statistics' before April 2008, but which have not yet been formally re-assessed. • re-assessed 'National Statistics' – those retaining their status after a formal re-assessment. • new 'National Statistics' – any statistical product which has been proposed by ministers as a candidate 'National Statistics' and

assessed and granted accreditation.

UK Sea Fisheries Statistics and its associated data sets are designated as National Statistics. They retained this designation following an assessment by the UK Statistics Authority in 2011. For more information see the UK Statistics Authority website at www.statisticsauthority.gov.uk/national-statistician/types-of-official-statistics.

Nominal catches

Nominal catches refer to landings converted to a live weight basis. A nominal catch consists of fish, crustaceans, molluscs and other aquatic animals, taken for all purposes (commercial, industrial and subsistence) except recreational, operating in inshore, offshore and high seas fishing areas (marine fishing areas). Inland waters, both fresh and brackish, are excluded. The data on the landings of such species and products require conversion by accurate yield rates (conversion factors) to establish the live weight equivalents at their time of capture.

Official statistics

The Statistics and Registration Service Act 2007 defines 'official statistics' as all those statistical outputs produced by the Office for National Statistics, central Government departments and agencies, devolved administrations and other Crown and certain non-Crown Bodies.

For more information see the UK Statistics Authority website at www.statisticsauthority.gov.uk/national-statistician/types-of-official-statistics.

Pelagic

The term pelagic fish covers species found mainly in shoals in midwater or near the surface of the sea.

Quota

A share in a total allowable catch (TAC) held by an EU member state. EU TACs are divided on the basis of a number of factors, including the member state's past catch record. Shares are awarded according to a principle of 'relative stability', namely that each member state should enjoy a fixed percentage share of the fishing opportunities for commercial species across time. See also: Total allowable catch.

Recruits

Recruits are the young fish in the year class which is entering the fishery.

Registration port

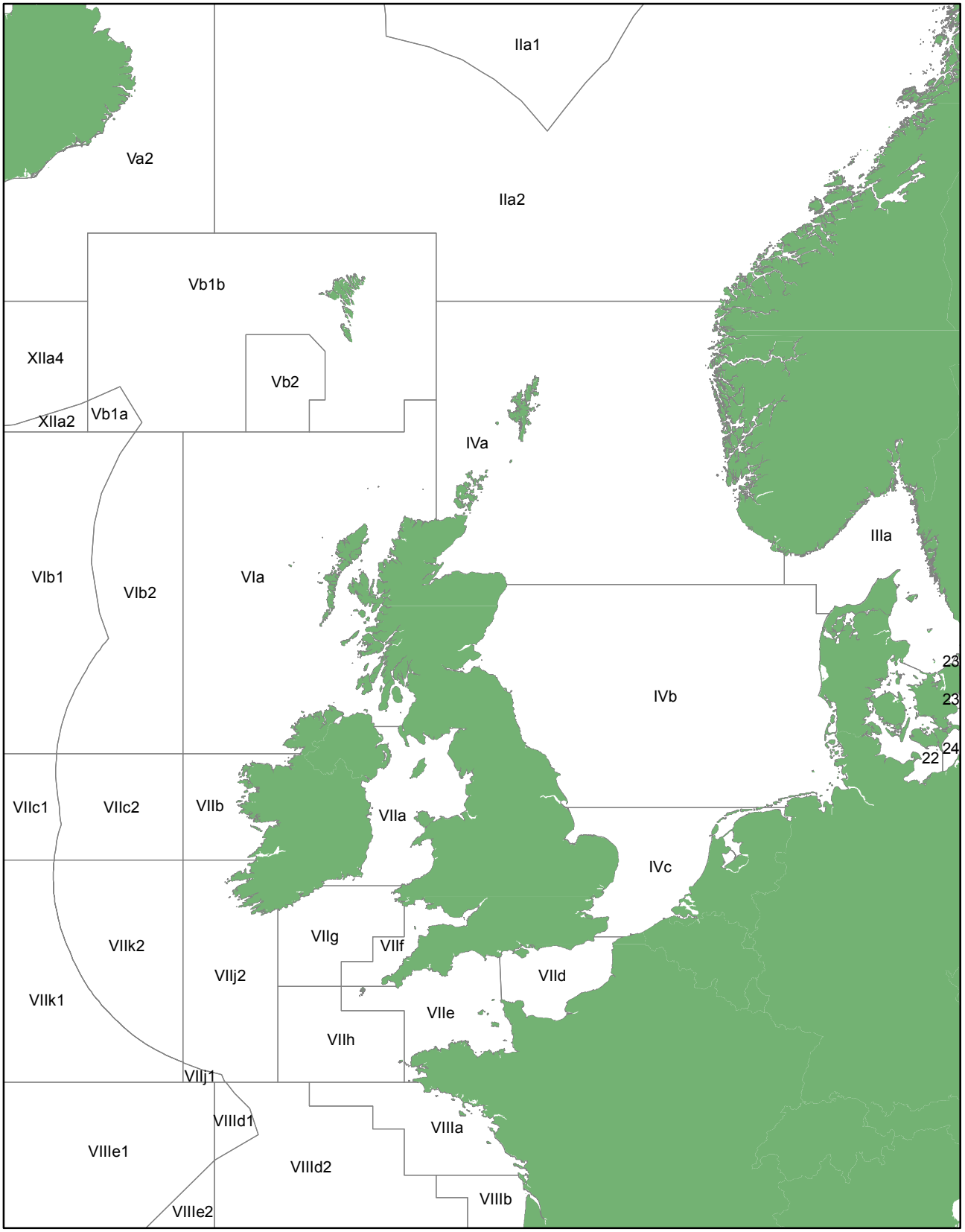
A registration port is a port chosen by the owner of a vessel as the port that forms part of the external markings of a fishing vessel – the Port Letters and Numbers painted on the bow of the vessel. The owner chooses this as part of the process of registering a commercial fishing vessel with the Register of Shipping and Seamen, part of the Maritime and Coastguard Agency. A fishing vessel's registration port defines its nationality but does not necessarily coincide with its administration port and may not be located close to the vessel's operational base.

Retail Price Index (RPI)

The Retail Price Index (RPI) is the most long standing general purpose domestic measure of inflation in the United Kingdom. It is calculated according to a different formula than the Consumer Price Index (CPI), and has wider commodity coverage. The RPI excludes very high and low income households and hence the CPI has wider population coverage than the RPI.

Seining	Seining is a method used exclusively for demersal fishing. The net, lighter than for trawling, is set on very long ropes designed to herd or contain the fish for capture in the net. After the fish have been surrounded by the ropes, the net is slowly hauled back to the vessel.
Shellfish	The term shellfish covers all crustaceans and molluscs.
Sole Recovery Zone (SRZ)	The Sole Recovery Zone (SRZ) corresponds to the Western Channel (ICES division VIIe), in which restrictions exist on fishing effort by vessels 10 metres or over using regulated gears. In the SRZ, regulated gears are beam trawls of mesh size equal to or greater than 80mm and static nets, including gill-nets, trammel-nets and tangle-nets, with mesh size less than 220mm.
Spawning stock biomass (SSB)	The spawning stock biomass (SSB) is the total weight of a species population capable of reproducing.
Stock	A stock is that part of a species population exploited in a defined fishing area.
Total allowable catch (TAC)	A total allowable catch (TAC) is a catch limit set by EU fisheries ministers for a particular stock. TACs are fixed on an annual basis on the basis of scientific research by national and international organisations, including ICES and the European Commission's Scientific, Technical and Economic Committee for Fisheries (STECF). TACs are usually expressed in tonnes live weight. See also: Quota.
Transhipment	The transfer from one conveyance to another for shipment. In this case, transhipments usually take place in coastal waters.
Trawling	Trawling may be used either for bottom-dwelling (demersal) or mid-water (pelagic) species, the net being of a basic funnel-shaped construction and towed behind a vessel or between two vessels (pair trawling).
Western Waters	The Western Waters are a group of sea areas in which restrictions exist on fishing effort by vessels 15 metres or over on trips with certain target species. The Western Waters comprise nine areas, of which UK registered vessels are permitted to deploy effort in four: ICES sub-areas V and VI, ICES sub-area VII, ICES sub-area VIII and the Biologically Sensitive Area. Target species are demersal species (excluding those covered by Council Regulation (EEC) No 2347/2002), scallops and edible crab and spider crab. In the Biologically Sensitive Area, restrictions exist on fishing effort by vessels 10 metres or over on trips with these target species.
Year class	A year class is the young of any one annual spawning.

Appendix 3: ICES divisions



Appendix 4: UK fisheries statistics methodology

Fleet size and composition

Statistics on the UK fishing fleet since 1990 have been based on the fleet of fishing vessels as registered with the Register of Shipping and Seamen, part of the Maritime and Coastguard Agency which is an executive agency of the Department for Transport. Information provided by the Register includes the length (overall and registered), breadth, gross tonnage, power, age and material of construction. Information on the fishing fleets of the Isle of Man, Guernsey and Jersey are supplied by the respective registering authorities. Prior to 1990, the statistics were based on fishing vessels known by Administrative Departments to be active.

Statistics on the size of the UK fishing fleet are complicated by the fact that the European Union (EU) has progressively revised the methodology used to determine vessel tonnage for the fishing fleet from various national and international standards, previously collectively called Gross Registered Tonnage (GRT), to a common standard based on the International Tonnage Convention 1969 (ITC69) and known as Gross Tonnage (GT). A phased programme of re-measurement was introduced in the UK in 1996 which was completed by the early part of 2004.

Licensing of vessels first applied in 1977 and covered only fishing vessels over 40 feet (12.14 metres) in certain fisheries. Following the adoption of the European Union's Common Fisheries Policy, the UK designated a number of fish stocks as pressure stocks and introduced a restrictive licensing scheme for vessels fishing those stocks. The licensing regime initially only covered vessels over 10 metres registered length, but its coverage has been progressively extended over the years.

- In February 1990 the licensing regime was extended to vessels of over 10 metres overall length fishing for quota stocks.
- Later in 1990 restrictive licensing was extended to cover all fishing by vessels over 10 metres overall length with the exception of those fishing for salmon and migratory trout which were covered by a separate regime.
- From May 1993 licensing was extended to vessels of 10 metres and under overall length.

Statistics on the UK fishing fleet in this publication are based on the fleet of fishing vessels as registered with the Register of Shipping and Seamen. To this is added details of fishing vessels as registered with the Crown Dependencies (Isle of Man and the Channel Islands) to form the full UK fleet, details of which are reported to the European Commission on a regular basis and recorded as part of the EU Community Fleet Register.

The UK fleet has been broken down for analysis by individual country based on the administration ports where vessels were licensed as at the end of 2016. Vessels which are registered but do not have an administration port at this time are not counted against any country.

Fish Producer Organisation membership

Fish producer organisations are institutions set up in accordance with EU regulations to improve the market for their members' catches. In the UK, FPOs are also granted responsibility by Fisheries Administrations for the management of fish quotas for vessels in their membership.

Vessel owners notify UK Fisheries Administrations when transferring between FPOs for the purposes of quota management. A comprehensive database of membership of FPOs is maintained which augments the vessel data provided by the Register of Shipping and Seamen.

Fishermen numbers

Data on fishermen numbers are collected separately by the Marine Management Organisation (MMO) for England, Marine Scotland, the Department of Agriculture, Environment and Rural Affairs for Northern Ireland (DAERA) and the Welsh Assembly Government (WAG). The Departments in Jersey, Guernsey and the Isle of Man do not contribute data on fishermen numbers.

In Scotland and Northern Ireland, staff in coastal offices are issued with a census of all vessels in their responsibility and asked to provide data on the number of part-time and regular fishermen on each vessel. Marine Scotland and DAERA process and compile these data to provide estimates of fishermen numbers on vessels at each port of administration.

In England and Wales, a census of fishing vessels over 10 metres in overall length is performed. For the large number of fishing vessels 10 metres and under in length, a stratified sample of vessels is taken, with strata defined by administration port, vessel length and gross tonnage. A 20 per cent sample is drawn from each stratum. As in Scotland and Northern Ireland, staff in coastal offices provide data on the number of part-time and regular fishermen on each vessel in their administration based on enquiries and local knowledge. All staff are provided with clear guidance on how to complete the survey.

From 2010, revised guidance was issued to staff on how to complete the survey. For the purposes of the survey, a fisherman is defined as a person working at sea on a commercial fishing vessel, such as skippers or crew members. The definition excludes persons not working at sea, such as administrators and land-based processing staff. Fishermen are classified as regular or part-time according to whether commercial fishing is their main occupation.

Data collected for England and Wales are processed by the MMO. Checks are made on the quality and reliability of data returned and every effort is made to minimise non-response. In the 2016 survey, fishermen numbers were collected for 1,138 of the 1,151 vessels surveyed, i.e. 98.9 per cent. Where no data were available on fishermen numbers for a vessel the value was assumed to be the average number of fishermen on vessels in the same stratum, such that no bias was caused by non-response. Estimates from the survey for England and Wales are combined with those supplied by Marine Scotland and DAERA to provide overall UK estimates.

Activity and landings

Statistics on fishing effort and landings are calculated using data collected and processed by officials of the various Fisheries Administrations in the UK, namely the MMO, Marine Scotland, DAERA, WAG and Departments in Jersey, Guernsey and the Isle of Man.

The main legislation used to collect these data is:

(i) the EU fisheries legislation on keeping and submitting logbooks and providing landing declarations and sales notes, primarily Council Regulation (EC) No. 1224/2009 (the 'Control Regulation').

(ii) general powers under the Sea Fisheries (Conservation) Act 1967 under which Ministers granting a licence can require the master, owner or charterer of the vessel named in the licence to provide such statistical information as required. These powers were widened in the Sea Fish (Conservation) Act 1992 to cover other types of information and the form in which it is to be supplied.

The method of data collection depends on the length of the vessel.

Data collection for vessels over 10 metres in overall length

Data collected on fishing effort by over 10 metre vessels come primarily from the fishing logbook. Two additional sources are used to collect data on landings by over 10 metre vessels: landing declarations and sales notes.

The fishing logbook captures data on fishing activity by individual vessels by trip, and for each day of activity within a trip. This includes details of the catch, by species, in terms of the presentation and quantity of fish retained on board. Information is also collected on the fishing gear used and the ICES division, rectangle and zone for the activity. Supply of logbook data is mandated by legislation for all vessels over 10 metres overall length in respect of catches of all species. Logbook data for UK vessels must be submitted within 48 hours of landing to UK authorities; this includes landings into foreign ports.

Landing declarations provide information on the weight and presentation of fish landed by species. As with logbooks, landing declarations must be submitted to authorities within 48 hours of completion of the landing.

Sales notes are required in respect of first sales of fish and fishery products. For paper declarations, sales notes for first sales of fish must be submitted to UK Fisheries Administrations within 48 hours of sale by the registered buyer of the fish, except at designated auction centres where the registered seller has responsibility. This reduces to 24 hours if they are required to report sales notes electronically (see information below in the section “Requirements to report fishing activity data electronically").

Requirements set out in EU legislation to require the submission of logbook and landing declaration data electronically have in recent years been phased so that now virtually all UK vessels 12 metres and over in overall length are required to report their activity data by electronic means only. This phasing out of paper reporting was introduced on a vessel by vessel basis as on-board systems were installed, checked and tested through a period of double-running before vessels switched over to electronic-only reporting. Additionally, from 1 January 2009, buyers and sellers with an annual turnover of first sale fish of more than 400,000 euro have been required to submit sales notes electronically; this threshold was reduced to 200,000 euro from 1 January 2011. A UK Electronic Reporting Systems (ERS) Hub has been set-up to collect, process, and store these electronic data.

Data collection for vessels 10 metres and under in overall length

For 10 metre and under vessels, there is no statutory requirement under either EU or national legislation for fishermen to declare their catches. Historically, information for this sector has been collected with the co-operation of the industry: it comprised log sheets and landing declarations voluntarily supplied by fishermen as well as sales notes and assessments of landings collected from market sources and by correspondents located in the ports. This collection of data has now been replaced after the introduction in September 2005 of a scheme of registration for buyers and sellers of first sale fish (see above). Sales notes are now used in addition to the voluntary information from fishermen.

During 2005 and 2006, UK Fisheries Administrations introduced a system of restrictive licensing for activity targeted at shellfish. As part of this system, new reporting requirements were introduced involving a requirement for fishermen fishing with under 10 metre vessels to complete diaries of their daily activity which needed to be submitted on a monthly basis. Summary information from these diaries is in use in Northern Ireland and it is used alongside other data in other parts of the UK, but the main source of activity data in the rest of the UK is the sales notes data. This helps to ensure consistency with the activity data for other types of fishing activity that are also derived from the sales notes data. The diaries of activity are however an important source of information for the scientific assessment of the state of the local shellfish fisheries around the coast and as such the

data in them are entered, collated and analysed by scientists at the fisheries laboratories around the UK.

Coverage

Data collection for vessels over 10 metres overall length aims to achieve full coverage of activity by this sector of the fleet. For the sector 10 metres or under in overall length, landings are only reported where the fish are sold or data have been provided voluntarily, leading to reduced coverage[1].

The reliability of the data collected is dependent on the information provided by fishermen. Inspectors at port offices carry out a mix of manual and automatic checks on the information provided by vessel operators. These include a check between logbook information and that given in the sales notes or observed as landed as well as checks against other sources of information (e.g. satellite position reports, information from aerial and at-sea surveillance and inspection activity carried out by UK enforcement officers).

Despite legal obligations for fishermen to declare their catches, a proportion of fishing activity remains unreported. This chiefly affects landings data and the effects on statistics on fishing effort are considered to be small. A 2009 study[2] jointly funded by the Department for Environment, Food and Rural Affairs and the Department for International Development estimated that between 2000 and 2003, illegal fishing in the northeast Atlantic amounted to between 5 and 13 per cent of reported catches of species studied.

The extent of illegal and unreported fishing by UK vessels is uncertain and varies across stocks. However, it is considered that the overall level of unreported fishing has been reduced in recent years following the introduction of a scheme of registration for buyers and sellers of first sale fish, and the implementation of Commission Regulation (EC) No. 1005/2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing.

It should be noted that landings do not typically equate to total catches, as fish may be returned to the sea through a practice known as discarding. The degree of discarding varies by stock, and by the sector of the fleet involved. The figures presented in this publication should not be interpreted as total removals from the sea.

Data processing

Information from log sheets, landing declarations, sales notes and other sources is keyed into computers connected to the main databases by government staff at port offices, or is transferred electronically from the UK ERS Hub. Details of the areas fished are taken from the logbooks and entered as codes for the ICES divisions and statistical rectangles. Where a statistical rectangle is split into different areas (e.g. part is in EU waters and part in Norwegian waters) an additional code is used to indicate the zone fished. Where a vessel fishes in more than one area in a single trip, the total amounts for the trip of each species, as given in the sales notes and landing declarations are allocated to the areas in proportion to the estimated quantities of the species taken from each area, as recorded in the logbook.

In many cases only the weight of fish landed is provided, as it is impractical to record the weight of fish at the time of capture due to working conditions. The landed weight may differ significantly

[1] 2011 data showed an increase in reported landings into the Isle of Man. From 1 January 2011 the Isle of Man authorities became fully integrated with the data collection and recording systems operated by mainland fisheries administrations, enabling the inclusion of activity that was previously not available.

[2] Agnew DJ, Pearce J, Pramod G, Peatman T, Watson R, et al. (2009) Estimating the Worldwide Extent of Illegal Fishing. PLoS ONE 4(2): e4570.

from the weight of the fish as it was taken from the sea, in large part due to the processing of the catch on board the vessel (e.g. gutting, filleting, etc). To render these data comparable, the landed weights are converted to a live weight equivalent using standard conversion factors according to the species landed and its presentation (e.g. gutted, skinned, etc).

The complete fishing records are transmitted to the central computer systems where further checks are carried out on the data before they are reflected in the main landings databases. Activity and landings data for the UK are compiled in a central database containing key information from systems run by the MMO and Marine Scotland. The former holds information on all landings into England, Wales and Northern Ireland and the Isle of Man by UK vessels and of landings abroad by vessels administered by the MMO, WAG, DAERA and Isle of Man Department of Environment, Food and Agriculture. The latter provides figures for landings into Scotland by all UK vessels and landings abroad by Scottish administered vessels.

Regular checks are made on the quality of the data and unusual records referred to staff in coastal offices to confirm or correct as necessary. In addition, prior to publication of these data, amendments are made to records with extreme prices for the weight of fish sold and values imputed based on average prices for the same species.

The sale value of transhipped landings is also imputed using an average price. These are instances where fish may be landed in the UK, but it is transported (usually by road and ferry) out of the UK before it is sold. This usually happens to allow vessel owners to take advantage of higher market prices for some species of fish when sold at continental markets rather than in the UK. Note that this differs from transhipment at sea. This involves transferring fish between vessels before landing, which is banned within community waters.

Effort statistics for the UK are calculated using trip data from the fishing logbook to determine the time spent at sea with each gear in each ICES sub-division and rectangle. This is combined with information from the Register of Shipping and Seamen on the capacity and engine power of vessels in order to calculate fishing effort exerted in GT days or kW days. These data are aggregated for different sea areas and gear types to produce the statistics shown.

In some instances the spatial resolution of the data is not sufficient to permit exact attribution of time spent at sea to recovery areas defined by EU legislation. In the Cod Recovery Zone, it is assumed that all effort deployed in ICES sub-division IIIa occurs outside of Kattegat. In the Western Waters, it is assumed that effort occurring within ICES rectangles transected by the boundaries of the Biologically Sensitive Area (BSA) occurs within the BSA itself. In this way measures of effort in the North Sea and BSA may be overestimates.

Effort deployed in the Western Waters is classified according to the target species of the trip. This is determined using a decision tree approved by the Scientific, Technical and Economic Committee for Fisheries (STECF) of the European Commission. The target species is assigned on the basis of the gears used and the species composition of the vessel's landings.

Changes in processing for UK Sea Fisheries Statistics 2012 onwards

All mussel landings with a zero landings value, since 2008, have been removed from the dataset used to create all the tables in Chapter 3. These landings were identified to be landings of mussel seed which, rather than being sold for human consumption at this point are re-laid for aquaculture. They are then harvested and sold at a later stage. As these landings are not sold at the point of initial dredging they have been removed and the data recalculated.

In the calculation of average prices throughout Chapter 3, landings with a zero value have not been included in the calculation as inclusion would result in a lower average price. There are various reasons why landings may have a zero value. There are some fish which cannot be sold and therefore have a zero value e.g. undersize fish landed as part of catch quota work, or scientific dispensation landings which cannot be sold but have to be recorded in sales notes to allow cross checks with landings declarations. There are also instances where fish are not offered for sale or

are intended for sale at a later date, and so are subject to takeover declarations. For the 2014 edition of Sea Fisheries Statistics, many of the takeover declarations – largely relating to landings into Ijmuiden and Bremerhaven – have had values imputed based on vessel agents' price data. A number of zero value landings into the UK have also had values added to better reflect the true value of fishing to the economy. This practice continued in future editions of the publication.

EU reporting requirements on fishing activity data

As part of the EU legislation that established controls on fishing activity, limits are set in two key areas:

(i) Fish quotas – limits on the level of fish that can be caught and landed related to the species of fish and sea area of activity.

(ii) Fishing effort – limits in terms of the total fishing effort that can be exerted, usually in terms of the days spent at sea by vessels combined with a measure of their catching capacity such as engine power.

The legislation that sets out control limits in these two areas also includes requirements on Member States to report data on the uptake by their fishing fleets against these levels. However, the information reported to the Commission has to be collated in line with two conflicting requirements, that is to report accurate data that are available as at the time of submission, as well as meet the tight reporting deadlines for providing information to the Commission after the end of a period. For example, information for end year quota and effort uptake has to be reported by the 15th calendar day after the end of the period in question.

Following the reporting of data to the Commission, there are additional processes that need to occur to allow the "close-down" of a year for quota and effort management purposes, such as additional checks with the Commission and other Member States on data, the agreement of end year quota and effort swaps, and the agreement on banking and borrowing of fish quotas between years. This close-down is a necessary element within the management of fishing activity as it allows for the level of any overfishes for the previous year to be determined and penalties needed for the current year to be set. This needs to be done as early in the year as possible to ensure that both national administrations and the fishing industry know the levels of quota and effort they have to operate with, so that any detrimental effect on management of activity within the current year is avoided.

As part of ensuring the close-down process takes place as early as possible, the Commission sets out operational requirements related to reporting amendments to data. After initial submissions by 15 January, final data for the previous year's quota and fishing effort uptake have to be submitted to the Commission by 15 February. There are, however, lags in the reporting of data on activity by fishermen that include:

- The legislative requirement on fishermen is to submit the reports on their operations within 48 hours of a landing taking place. This does not guarantee that fishing administrations receive this information within 48 hours, and we frequently experience significant delays in receiving documentation.

- Processing of documentation takes time as there is a significant amount of information reported on the logbook on the activity of vessels. The EU logbook system used for the vessels over 10 metres in length covers many different reporting obligations, thus the volume and complexity of data involved can lead to delays in data entry.

- The information received is thoroughly checked and validated before reporting to the Commission. This can delay the use of data.

In previous years a consequence of the early reporting deadline and the required close-down of a year has been that there were data entered and validated after the reports were submitted to the Commission. For the final reports on UK landings of quota species and fishing effort for 2013 onwards, a revised approach was taken which combines pre-validated data (from electronic logbooks and VMS systems) with fully validated data that have gone through the array of cross checks required under the EU Regulations. Additional validation processes were put in place to quality assure the pre-validated data prior to submission. By definition it was not possible to include any estimates for landings where no information to inform authorities that a landing or fishing activity had taken place had been received.

The desire to reduce the impact of these lags in information is one of the key drivers for larger fishing vessels to move to electronic reporting of data on activity both in terms of the activity carried out by fishermen at sea and also in terms of the land-based activity in terms of the sales notes associated with the first sale of the fish after landing, and so the requirements to report data electronically have been expanded over recent years. By the first half of 2015, all UK vessels 12 metres and over in length were submitting activity data electronically - vessels 12 metres and over in length accounted for 91 per cent of the total quantity of fish landed by UK vessels in 2016. In terms of the sales notes, these are usually reported by the merchants buying the fish, and for these first sales of fish within the UK in 2016, around 90 per cent of the tonnage of fish reported as sold from UK vessels were reported via electronic sales notes rather than paper documents. The electronic reporting of activity has helped to significantly reduce the lags in the monitoring and reporting of activity.

Data are prepared for the annual statistics publication at a point significantly after the close-down date for EU reporting systems. The publication is prepared to meet a wide range of uses. Apart from Tables 2.9, 2.10 and 3.12, the data included incorporate the full picture of data held on UK fisheries administrations systems including information on any landing that is received after the EU close-down date and also all data that have passed through the complete checking and validation processes. This means that the publication gives as complete a picture as possible of total UK vessel activity in quantity and value terms. We therefore report on all landings and effort data, including that related to non-quota species (such as shellfish) which are of economic importance to the UK industry. See Appendix 5 for details of our policy with regards to data revisions.

Requirements to report fishing activity data electronically

Requirements to report data on fishing activity through electronic reporting systems rather than by using the paper community logbook were first introduced by Council Regulation (EU) 1996/2006. A phased approach to the introduction of requirements to report data electronically was planned to cover all vessels over 15m overall length. These requirements were subsequently revised by Council Regulation (EU) No. 1224/2009 that introduced an extended deadline for the change-over as well as extending the requirements so that all EU fishing vessels over 12m overall length would eventually be required to report data by electronic means. The full requirements of the electronic reporting system are in Commission Implementing Regulation (EU) No. 404/2011. This sets out the various elements of activity during a fishing trip that must be reported – these cover all possible events and activities from the vessel leaving port to its return to land fish. More details on these requirements can be found on the MMO internet site and that of the European Commission via the links given below:

https://www.gov.uk/government/publications/how-to-report-fishing-activities-using-an-electronic-logbook-software-system

http://ec.europa.eu/fisheries/cfp/control/technologies/ers/index_en.htm

As stated earlier, by the first half of 2015, all active UK fishing vessels of 12 metres and over in length were reporting their data electronically. Both data reported electronically and on paper declarations go through extensive validation checks, with the system used for electronic returns extended to cover the differences in structure and the additional elements required within it. The

validation system also covers checks mandated by EU legislation that must take place on all landings data received via electronic or paper declarations. These checks are set out in Article 109 of Council Regulation (EU) No. 1224/2009, and require the data reported on fishing activity in logbooks, landing declarations and sales notes to be cross-checked for consistency and accuracy. Activity data reported in these documents are also compared with other sources of information, such as satellite surveillance information from vessels where available.

The fishing activity data reported to the European Commission under the various sets of EU legislation have all gone through these checks before inclusion in the reports, with any discrepancies identified going through investigation to identify the causes in case further action is required. The investigation of discrepancies involves a significant degree of resources in all four UK fisheries administrations, but the complex nature of these checks does lead to instances where there can be a lag in time between the activity taking place and it being included in the data reports. The change-over to electronic reporting systems has increased the length of the validation process in some cases as vessel operators have had to become used to their new role as data reporters using the new electronic systems.

Imports and exports

HM Revenue & Customs (HMRC) is responsible for collecting the UK's international trade in goods data. The data are compiled from trade declarations made using commodity codes from the UN Tariff (HS Nomenclature) and its EU derivative the Intrastat Classification Nomenclature (ICN). These data are sent annually to the MMO, who process the data for this publication.

Landings of fish into the UK by foreign vessels are typically included in import statistics; however, statistics on imports and landings by foreign registered vessels may not strictly be comparable. Arrivals of fish should be reported where the economic owner of the vessel is outside the UK. In some cases, the countries of vessel registration and economic ownership may differ. A further complication is that import statistics do not include fish landed into the UK by foreign vessels which have a final destination outside the UK. Lastly, in some cases there exists a value threshold for declaration of imports. For these reasons it is possible that imports of fish may be below the quantity of landings reported for foreign registered vessels.

Exports include dispatches of fish by UK economically owned vessels when landing outside the UK. For similar reasons to those for imports, these are not directly comparable with landings by UK registered vessels abroad.

Household consumption and expenditure

Data on household purchases are sourced from the Living Costs and Food Survey run by the Office for National Statistics. The Family Food module of the survey collects detailed quantity and expenditure information on household and eating out purchases of food and drink for use by the Department for Environment, Food and Rural Affairs (Defra).

The survey is an annual voluntary sample survey of private households. The survey is continuous, with interviews being spread evenly over the year to ensure that seasonal effects are covered. Each report details the number of people and households that completed a diary during the reporting year.

Each individual aged 16 and over in the household is asked to keep diary records of daily expenditure for two weeks. Information about regular expenditure, such as rent and mortgage payments, is obtained from a household interview along with retrospective information on certain large, infrequent expenditures such as those on vehicles. Simplified diaries are kept by children aged between 7 and 15.

Prior to 2008, the Living Costs and Food Survey was named the Expenditure and Food Survey. In 2001-2002 this replaced the National Food Survey and the Family Expenditure Survey. More detailed methodological information for all four surveys is available from Defra and the Office for National Statistics.

Inflation

The Retail Price Index (RPI) and Consumer Price Index (CPI) measures of inflation are produced by the Office for National Statistics. The Landed Price Index (LPI) is produced by the MMO.

Only the components of the RPI and CPI for fish prices are included in this publication. These were based on a 'basket' of six items: fresh white fish fillets, fresh salmon fillets, frozen prawns, canned tuna, fish fingers, and frozen breaded/battered white fish. These two price indices differ in three main ways:

- population base – the RPI excludes very high and low income households and hence the CPI has a wider population coverage than the RPI.

- formulae used to combine prices – the CPI uses a combination of geometric means and arithmetic means, whereas the RPI only uses arithmetic means.

- commodity coverage – the CPI excludes owner occupiers' housing costs and hence the RPI has wider commodity coverage than the CPI. The fish components of these indices have the same commodity coverage.

Further methodological details for the RPI and CPI are available from the Office for National Statistics.

The LPI is a simple price index used to assess the change in prices at first sale of fish landed into the UK by UK vessels. It is calculated using the average annual prices of 46 categories of fish species, using data collected on all landings into the UK by UK vessels. The prices are aggregated using a weighted mean, with weights chosen as the quantities landed (in live weight equivalent) of each species category into the UK in 2000.

GDP for fishing

The Office for National Statistics produces data on gross value added (GVA), gross domestic product (GDP) and output indices. GVA measures the contribution to the economy of each individual producer, industry or sector in the United Kingdom. It is used in the estimation of GDP, a key indicator of the state of the whole economy. In the UK, three theoretical approaches are used to estimate GDP: 'production', 'income' and 'expenditure'. When using the production or income approaches, the contribution to the economy of each industry or sector is measured using GVA.

The production approach to estimating GDP looks at the contribution of each economic unit by estimating the value of an output (goods or services) less the value of inputs used in that output's production process. The income approach to estimating GDP measures the incomes earned by individuals (e.g. wages) and corporations (e.g. profits) in the production of outputs (goods or services).

The link between GVA and GDP can be defined as: GVA (available by industry only) plus taxes on products (available at whole economy level only), less subsidies on products (available at whole economy level only) equals GDP (available at whole economy level only). In summary:

GVA + taxes on products - subsidies on products = GDP

Further methodological details on GDP and GVA are available from the Office for National Statistics.

Other data sources

EU fishing vessels

The European Commission collects and publishes data on the characteristics of EU fishing vessels in the EU Fleet Register. Each Member State provides the Commission with a complete snapshot of their national register to the EU Fleet Register on the first working day of March, June, September and December each year, as required by Commission Regulation (EC) No 26/2004. Validation checks are performed to confirm the consistency of data submitted before the data are published in an online database.

Accidents, lost vessels and fatalities

Data on accidents involving UK fishing vessels are collected and compiled by the Marine Accident Investigation Branch (MAIB), a separate branch within the Department for Transport. MAIB inspectors examine and investigate all types of marine accidents involving UK vessels worldwide, and other vessels in UK territorial waters.

EU landings

EU member states exchange information on landings of quota species via the Fisheries Language for Universal Exchange (FLUX). Data on the quantity landed of each stock subject to quotas are submitted to meet monthly reporting deadlines set out in EU legislation, in particular Council Regulation (EC) No. 1224/2009. These reporting deadlines are often shortly after the close of the fishing period; data lags mean that the figures reported are typically slight underestimates of the true quantity landed. Each member state reports the landings into their own country by vessels registered in other member states, leading to occasional differences with figures reported by the UK on landings by UK vessels abroad. The figures are compiled by the European Commission to give an overall picture of the landings by each member state.

Stock assessments

Stock assessments are provided by the International Council for the Exploration of the Seas (ICES) using data supplied by national administrations. In the UK, the Centre for Environment, Fisheries, and Aquaculture Science (Cefas), an executive agency of Defra, provides expert advice on fisheries assessment.

The world fishing industry

Data on the world fishing industry are compiled by the Fisheries and Aquaculture Department of the Food and Agriculture Organisation of the United Nations (FAO). Data on landings by UK vessels are supplied by the MMO on an annual basis; separate figures for the Isle of Man and the Channel Islands are sent directly by their Fisheries Departments. FAO figures are not directly comparable with landings figures in Chapter 3 owing to differences in time of production.

Appendix 5: Revisions policy

Where possible, the Marine Management Organisation produces revised figures each year to ensure that users have access to the latest data available. Revisions typically affect fishing effort, catches and trade data, where data from logbooks, landing declarations, sales notes and trade declarations may occasionally be received or amended several months after the event. The magnitude of revisions to tables is typically larger for more recent years although the size of revisions is usually very small. Any revised data presented in this publication will be clearly marked with an 'R' against the relevant entries.

There are a number of causes of the revisions made in this publication:

i) **Receipt of additional data**. Despite strict data reporting requirements, some data are not received or entered at the time of publication. This typically affects data for more recent years.

ii) **Revisions to data sources**. Corrections are made to database entries throughout the year where these are found to be incorrect. In addition, for landings data systematic corrections are made to implausible quantities and values prior to production of the publication to reduce the influence of outliers.

iii) **Rectification of data processing errors**. Where data are found to have been incorrectly processed for a previous publication, these errors are corrected as soon as possible.

Users should always refer to the latest figures published by the Marine Management Organisation. Previous editions of all publications are made available online on the Marine Management Organisation website should users wish to examine the effect of revisions in further detail.

The Marine Management Organisation adheres to the Department for the Environment, Food and Rural Affairs' policy on revisions and errors. Further information can be found in the *Statement on Revisions and Errors* at

https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/about/statistics#corporate-procedures-and-standards.

Structure and activity of the UK fishing industry

Several tables in Chapter 2 are revised annually as follows:

Table	Title
2.7	Number of accidents, lost vessels and fatalities involving UK vessels: 2006 to 2016 (revised by the Marine Accident Investigation Branch)
2.8	Beam trawl activity in the Sole Recovery Zone: 2002 to 2016
2.11	Days at sea for the over 10m UK fishing fleet: 2002 to 2016 (supplementary table)

Landings

Tables in Chapter 3 are revised annually for the preceding four years to reflect information received since the previous publication. The following table shows the effect of revisions to landings data published in *UK Sea Fisheries Statistics 2015*:

Figures published in *UK Sea Fisheries Statistics 2016* as a proportion of figures previously published in *UK Sea Fisheries Statistics 2015*

	Quantity				Value			
	2012	2013	2014	2015	2012	2013	2014	2015
Landings into the UK by UK vessels:								
Demersal	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.1%
Pelagic	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Shellfish	100.0%	100.0%	100.0%	100.1%	100.0%	100.0%	100.0%	100.2%
Total	100.0%	100.0%	100.0%	100.1%	100.0%	100.0%	100.0%	100.1%
Landings into the UK by foreign vessels:								
Demersal	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	114.6%	100.1%
Pelagic	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Shellfish	100.0%	100.0%	100.0%	100.0%	99.9%	100.0%	108.0%	100.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	109.5%	100.1%
Landings abroad by UK vessels:								
Demersal	100.0%	100.0%	100.0%	100.4%	100.0%	100.0%	100.0%	100.3%
Pelagic	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Shellfish	100.0%	100.0%	100.0%	100.6%	100.0%	100.0%	100.0%	101.9%
Total	100.0%	100.0%	100.0%	100.1%	100.0%	100.0%	100.0%	100.2%

Source: Fisheries Administrations in the UK

There have been some large percentage increases in the value of foreign demersal and shellfish landings into the UK in 2014. These relate to relatively small amounts and it should be noted that the revision has resulted in just a one per cent increase in value for all fish landed into the UK for that year.

Revisions to more detailed landings figures may differ in magnitude to the above indicative proportions.

Supplies, overseas trade and marketing

All tables in Chapter 4 are revised annually as follows:

i) Landings data (Tables 4.1, 4.4a-e, 4.5) are revised annually for the preceding four years, in keeping with conventions used in Chapter 3.

ii) Trade data (Tables 4.1, 4.2, 4.2a, 4.3, 4.3a, 4.4a-e) are revised annually for the preceding year. The current year's data are provisional.

iii) Household consumption, RPI, CPI and GDP data are revised for all previous years using data received from the Department for Environment, Food and Rural Affairs and the Office for National Statistics.

The following table shows the effect of revisions to trade data published in *UK Sea Fisheries Statistics 2015*:

Trade data published in *UK Sea Fisheries Statistics 2016* as a proportion of figures previously published in *UK Sea Fisheries Statistics 2015*

	Imports (2015)		Exports (2015)	
	Quantity	Value	Quantity	Value
Fish (excluding Shellfish)	100.0%	99.9%	99.7%	100.0%
Shellfish (Crustaceans and Molluscs)	99.9%	100.0%	99.8%	99.9%
Fish Products	99.9%	99.8%	99.9%	99.9%
Total	99.9%	99.9%	99.7%	99.9%

Source: H.M. Revenue and Customs

Main stocks and their level of exploitation

The time series estimates of abundance and fishing mortality are revised each year using the data provided by the International Council for the Exploration of the Seas (ICES). Stock assessments for previous years are as provided in annual ICES reports and are not updated using more recent data.

Overview of the world fishing industry

All tables in Chapter 6 are revised annually for all previous years using data received from the United Nations Food and Agriculture Organisation (FAO).

Appendix 6: Further information

Official publications

Other official publications on sea fisheries statistics include:

MMO / DEFRA	UK Fishing Vessel List. List of registered and licensed vessels of over 10 metres overall length. Published monthly. Monthly UK Sea Fisheries Statistics. Summary publication of landings into England and Wales. Published monthly. Available from https://www.gov.uk/government/organisations/marine-management-organisation/about/statistics or by writing to Marine Management Organisation, Area 8C, 9 Millbank, c/o 17 Smith Square, London SW1P 3JR. Tel: 020 7238 5518; statistics@marinemanagement.org.uk
Marine Scotland	Scottish Fisheries Statistics 2015. Tel: 0131 244 6437. Available online from http://www.gov.scot/Topics/Statistics/Browse/Agriculture-Fisheries/PubFisheries
DAERA	Report on the sea and inland fisheries of Northern Ireland. Available from DARDNI Fisheries division, Tel: 028 9056 9262 https://www.daera-ni.gov.uk/topics/fisheries
FAO	FAO Yearbook of Fishery and Aquaculture Statistics 2014. Available from http://www.fao.org/fishery/publications/yearbooks/en
Eurostat	Agriculture, Forestry and Fisheries Statistics: 2016. Available from http://ec.europa.eu/eurostat/en/web/products-statistical-books/-/KS-FK-16-001

The statistics in this release are derived from the same sources as the above publications in many cases. However, discrepancies may exist between these publications owing to differences in dates and methods of data extraction and compilation.

Useful websites

Marine Management Organisation	www.gov.uk/mmo
Defra	https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs
Marine Scotland	www.gov.scot/About/People/Directorates/marinescotland
DAERA	www.daera-ni.gov.uk
Welsh Assembly Government	gov.wales/?lang=en
National Statistics	www.statistics.gov.uk
Sea Fish Industry Authority	http://www.seafish.org

Maritime and Coastguard Agency	www.dft.gov.uk/mca
Marine Accident Investigation Branch	www.maib.gov.uk
Centre for Environment, Fisheries and Aquaculture Science	www.cefas.defra.gov.uk
European Commission - Fisheries	www.ec.europa.eu/fisheries
Eurostat	www.ec.europa.eu/eurostat
EU Fleet Register	www.ec.europa.eu/fisheries/fleet
FAO Fisheries Department	www.fao.org/fishery
ICES	www.ices.dk

Additional information on management of UK fish quotas

Limits are set each year on the levels of quota available to Member States in a range of fisheries – there are limits on the quantity of different species of fish that can be caught and landed from different combinations of sea areas set for each Member State. More information on the management of quotas in the UK can be obtained from the MMO at:
https://www.gov.uk/government/publications/quota-management-rules

A key element of managing fish quotas in the UK is the delegation of management responsibilities to various parts of the UK industry. Allocations are made each year to Producer Organisations (POs) within the UK based on the holdings of Fixed Quota Allocation units (FQAs). More information on the process is available from the source listed above. In addition a publicly accessible register of holdings of these FQA units is available on line. This includes details of the holdings of FQA units related to individual vessels and as held by POs collectively on behalf of their member vessels. More information on these holdings is available at: https://www.fqaregister.service.gov.uk

The MMO and other UK fisheries administrations continually monitor the activity of UK fishing vessels in terms of landings of quota species during each year. Weekly reports are released which give the latest picture of landings by UK vessels against the annual quotas available. These are available from the MMO at:
https://www.gov.uk/government/statistical-data-sets/quota-use-statistics