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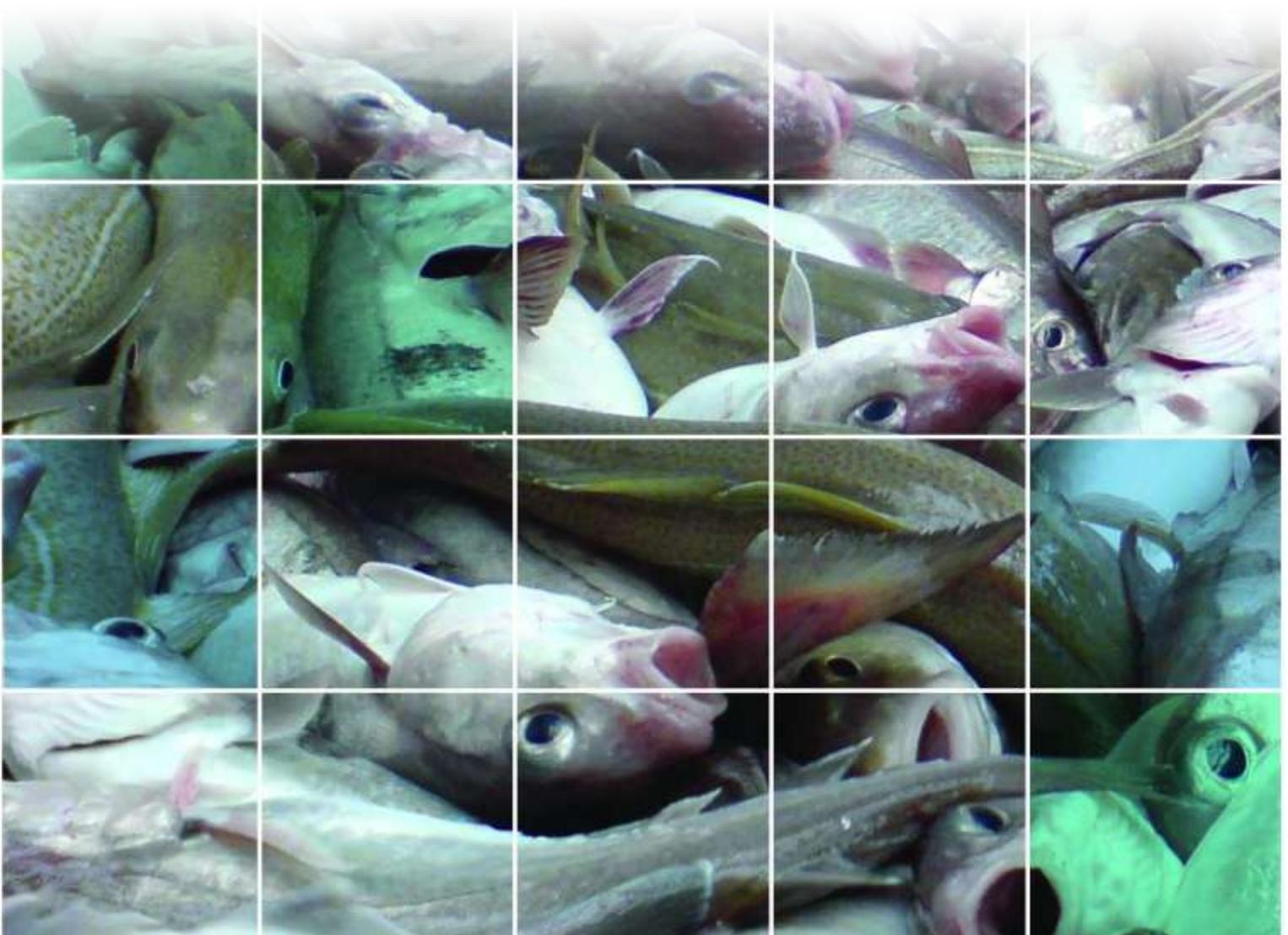
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# Fish Landings in Shetland and by the Shetland Fleet in 2011

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## Introduction

This review summarises the results of an analyses of the official statistics\* for the weight† and value of fish landed in Shetland, and of fish landed by Shetland fishing vessels, in 2011 (the last year for which these data are available).

These data provide a more comprehensive picture of 'Shetland landings' than the published *Scottish Fisheries Statistics* (summarised in a previous NAFC *Information Note*), including landings in Shetland by non-Shetland vessels and landings by Shetland vessels (both in and outside Shetland).

## Further Information

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\* These statistics were supplied by the Marine Analytical Unit of Marine Scotland Science, part of the Scottish Government's Marine Scotland department.

† All weights are 'Live Weight Equivalent', i.e. the estimated weight of the fish in their live (ungutted) state.

## Overall

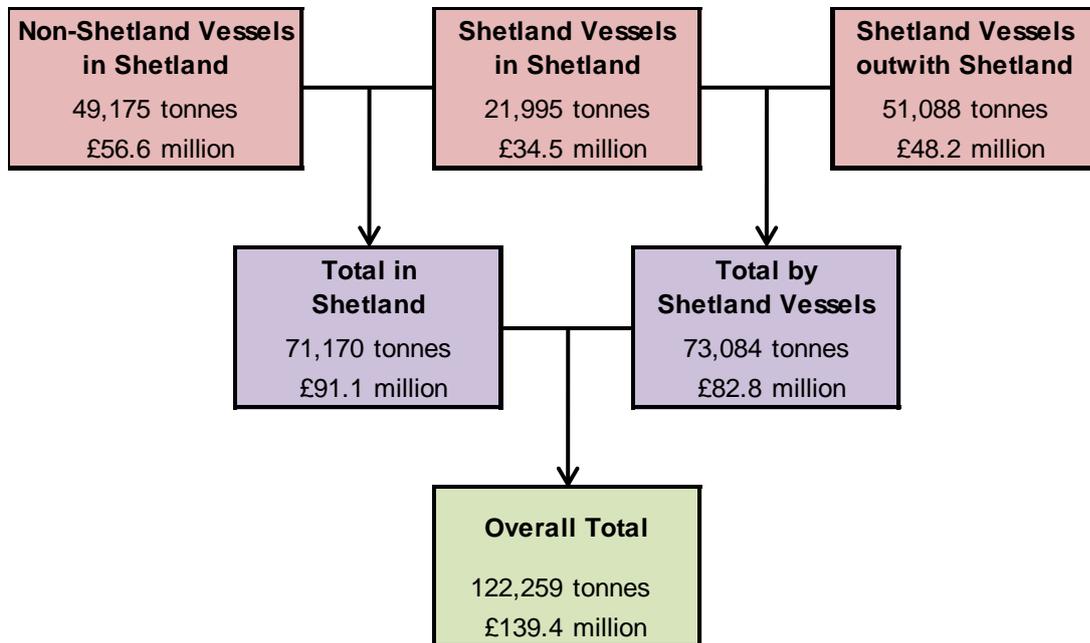


Figure 1 Summary breakdown of the weight and value of all fish landed in Shetland and by Shetland vessels in 2011.

A total of just over 71,000 tonnes of fish, worth £91 million, were landed in Shetland in 2011 (Figure 1). Of these landings, Shetland fishing vessels accounted for almost 22,000 tonnes (31% of the total) worth £35 million (38%).

Overall, the weight of fish landed was considerably lower than in 2010 (down by 21%, Figure 2), but their value was 12% higher, continuing the general upward trend seen over the last decade. Between 1999 and 2011 the value of fish landed in Shetland more than quadrupled (a 4½ fold increase), although their weight fell somewhat over the same period.

The changes in the weight of fish landed in Shetland in recent years have been largely in landings of pelagic fish (mackerel, herring, etc.), and are discussed in more detail below (p. 11).

Pelagic species (mackerel, herring, etc.) accounted for most of the fish landed in Shetland (78% by weight, 68% by value), but had the smallest unit-value (Table 1). Whitefish (cod, haddock, monks, etc.) accounted for 19% of the weight of landings but 28% of their value. Shellfish (crabs, scallops, etc.) accounted for the smallest proportion of landings (2% by weight, 3% by value) but had the highest unit-value.

## Fishing Landings in Shetland and by the Shetland Fleet - 2011

An additional 51,000 tonnes of fish worth about £48 million, most of it pelagic, were landed outside Shetland by local vessels. This brings the notional total of 'Shetland' fish landings to 122,000 tonnes and £139 million (landings in Shetland plus landings elsewhere by Shetland vessels). This total weight is 13% lower than in 2010, but the value is 25% higher.

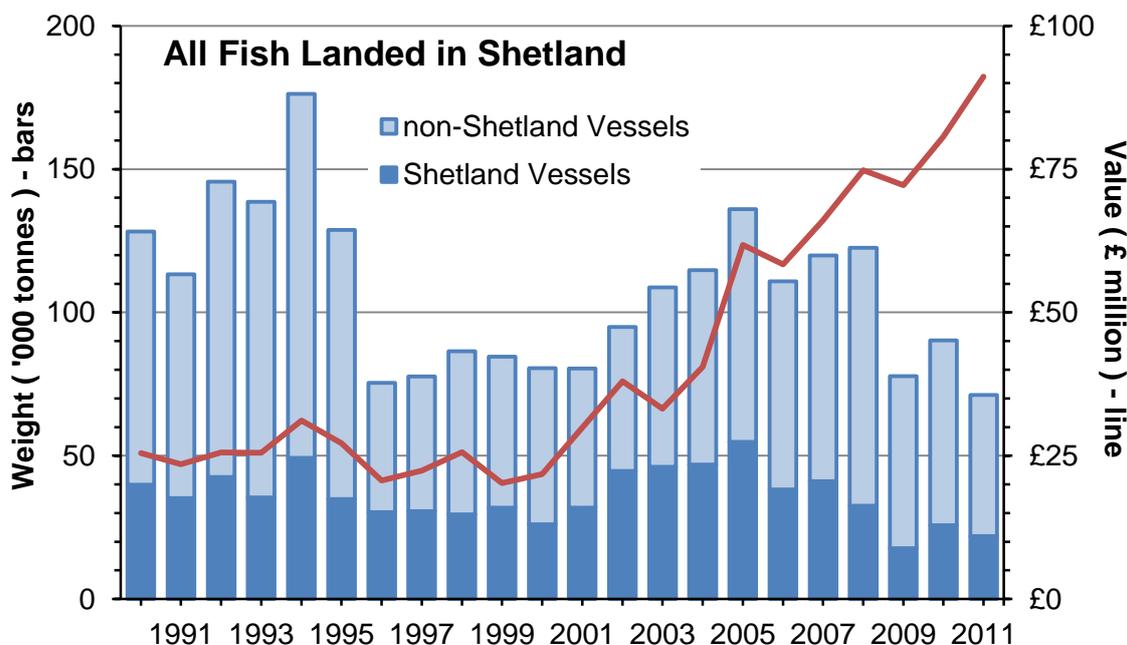


Figure 2 The weight (bars) and value (line) of all fish landed in Shetland from 1990 to 2011.

Table 1 The total weights and values of fish landed in Shetland in 2011 by species group.

	Weight		Value		Unit Value
	tonnes	%	£ m	%	£ / kg
<b>Pelagic Fish</b>	55,768	78%	£61.9	68%	£1.11
<b>Whitefish</b>	13,838	19%	£26.1	29%	£1.89
<b>Shellfish</b>	1,565	2%	£3.1	3%	£2.00
<b>Total</b>	71,170		£91.1		£1.28

## **National Context**

In a national context, just under one quarter (23%) of all fish landed in Scotland and 15% of all the fish landed in the UK in 2011 were landed in Shetland. More fish was landed in Shetland than in any other port in the UK, except Peterhead, and more finfish were landed in Shetland than in all of England, Wales and Northern Ireland combined.

Shetland fishing vessels accounted for one fifth (20%) of all fish landed by Scottish fishing vessels, and 12% of all landings by UK vessels. For finfish (excluding shellfish) the figures are one quarter (25%) and 16%, respectively.

# Whitefish

'Whitefish' includes cod, haddock, whiting, monkfish, flatfish and similar species. Squid and nephrops (aka. 'prawns', scampi, langoustine, etc.) are also included here - although they are technically shellfish - as they are primarily caught by whitefish fishing vessels.

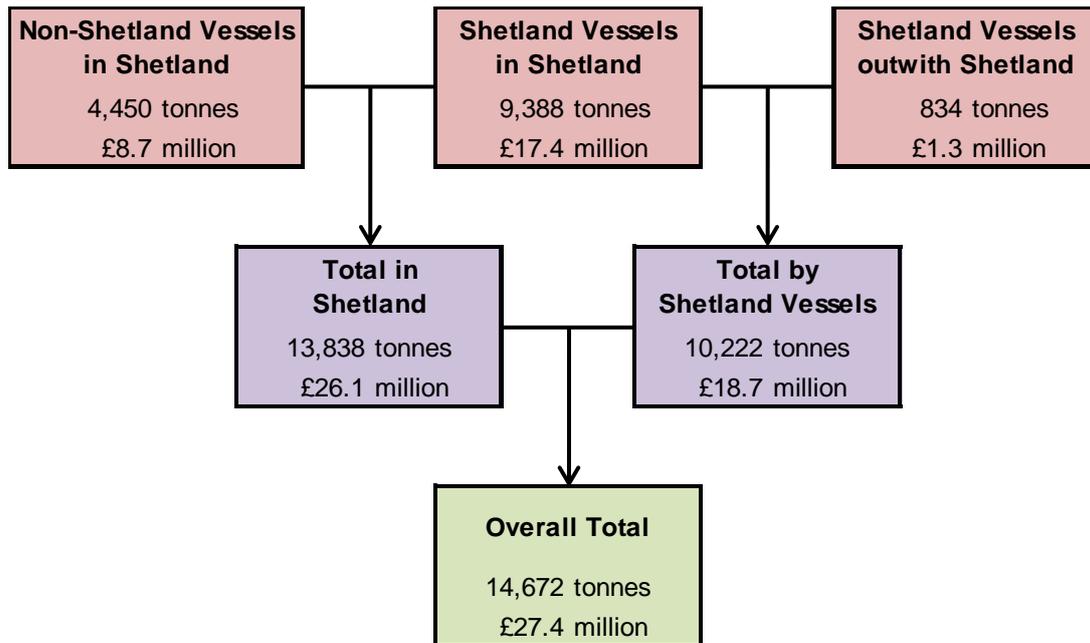


Figure 3 Summary breakdown of the weight and value of whitefish landed in Shetland and by Shetland vessels in 2011.

A total of just under 14,000 tonnes of whitefish worth about £26 million were landed in Shetland in 2011, two thirds of this (67% by weight) by local fishing vessels (Figure 3). Shetland fishing vessels landed a total of just over 10,000 tonnes of whitefish almost £19 million, most of it (92% by weight) in Shetland.

The weight of whitefish landed in Shetland in 2011 was slightly (4%) lower than in 2010, although the value had increased by 8% (Figure 4). The changes in the weight and value of whitefish landings in Shetland were very similar for Shetland and non-Shetland fishing vessels.

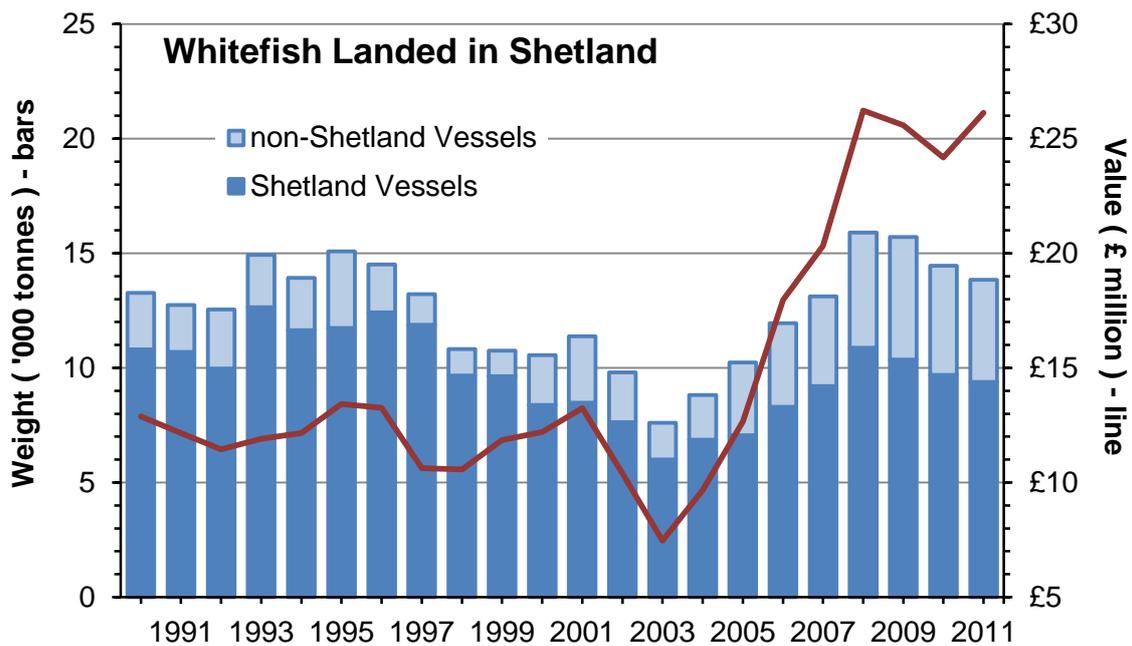


Figure 4 The weight (bars) and value (line) of whitefish landed in Shetland from 1990 to 2011.

Between 2008 - when it reached a maximum - and 2011 the weight of whitefish landed in Shetland fell by 13%. However, their value in 2011 was almost exactly the same as in 2008, the increase in 2011 having cancelled out the declines in the previous two years (Figure 4). The average unit-value (£/kg) of whitefish landed in Shetland increased by 14% over this period.

The declines in the weight of whitefish landed in Shetland over the last few years are believed to be primarily a result of tighter fisheries regulations, in particular cuts in fishing effort - the amount of time that fishing vessels are allowed to spend at sea.

It is estimated that sales through the local fish markets accounted for about 85% (by weight) of the whitefish landed in Shetland in 2011. The remainder is shipped directly south, either for sale at Mainland fish markets or directly to processors.

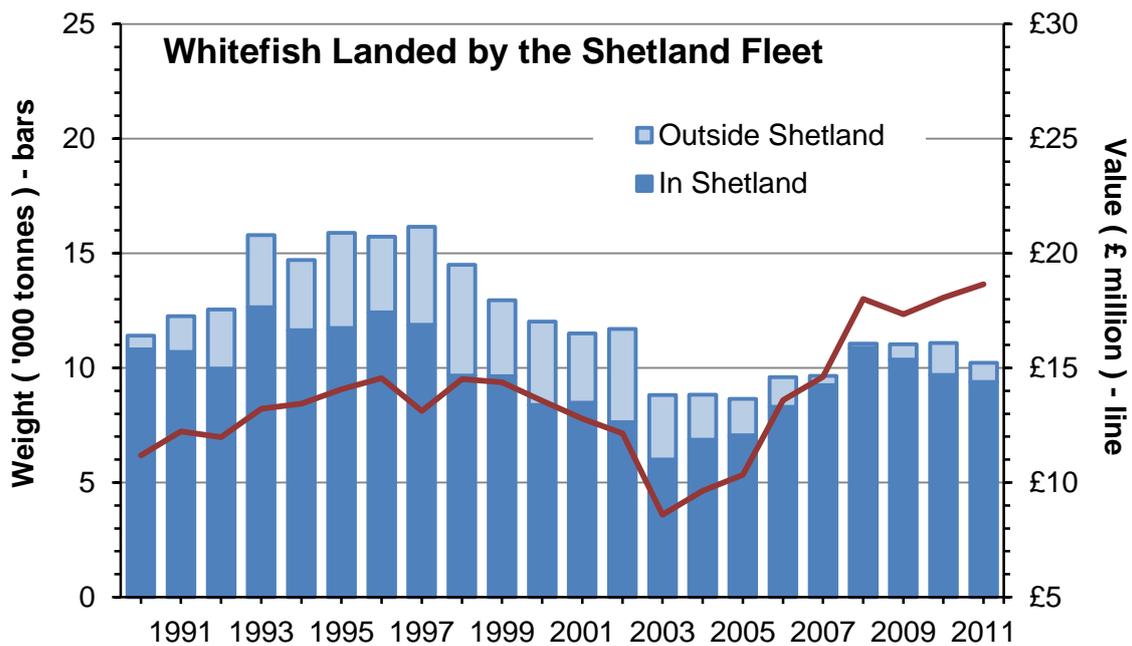


Figure 5 The weight (bars) and value (line) of whitefish landed by Shetland fishing vessels from 1990 to 2011.

The weight of whitefish landed by Shetland vessels also fell in 2011 (by 8%), although there was a small (3%) increase in their value (Figure 5). Most of this fall was in landings outside Shetland; landings of whitefish by Shetland vessels in Shetland declined by only 3% in weight and increased in value by 7%.

Landings of whitefish by local vessels outside Shetland in recent years have resulted from vessels travelling further afield to find alternative fishing opportunities, for example off North-East Scotland and North-East England, and as far afield as the English Channel. (In the past, such landings largely reflected 'tripping' to mainland markets.)

## Composition of Whitefish Landings

Monks accounted for just less than one quarter by value of all whitefish landed in Shetland in 2011, although a smaller proportion by weight (Table 2). Cod, which topped the list in 2010, accounted for a slightly smaller proportion of the value of whitefish landings in 2011.

Figure 6 and Figure 7 show the trends in the weights and value of landings in Shetland of the main whitefish species over the last decade.

Table 2 The top-10 whitefish species (by value) landed in Shetland in 2011.

	<b>Weight</b>	<b>Value</b>
<b>Monks</b>	13%	24%
<b>Cod</b>	19%	22%
<b>Haddock</b>	19%	13%
<b>Megrims</b>	5%	8%
<b>Whiting</b>	13%	8%
<b>Saithe</b>	14%	7%
<b>Ling</b>	6%	5%
<b>Nephrops (Prawns)</b>	2%	3%
<b>Squid</b>	1%	2%
<b>Lemon Sole</b>	1%	1%
<b>Others</b>	7%	6%
<b>Total</b>	<b>13,838 t.</b>	<b>£26.1 m</b>

## Fishing Landings in Shetland and by the Shetland Fleet - **2011**

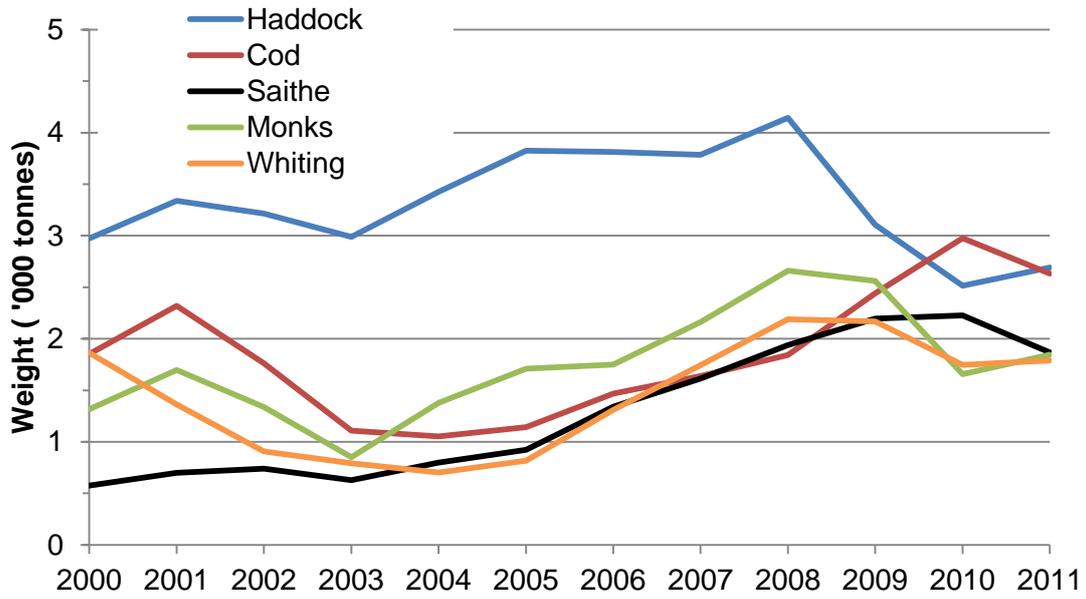


Figure 6 The weights of the principal whitefish species landed in Shetland from 2000 to 2011.

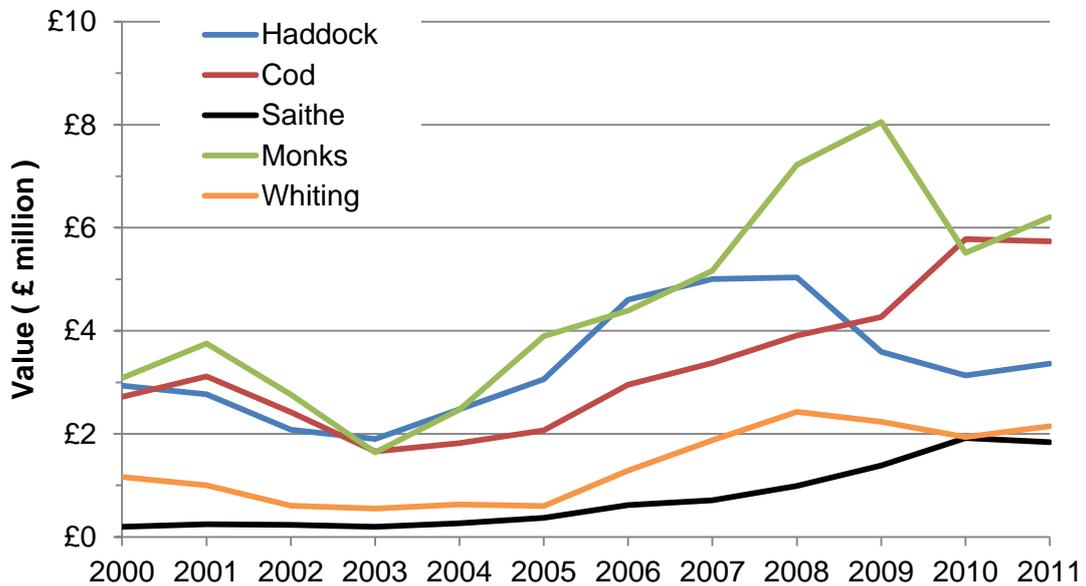


Figure 7 The values of the principal whitefish species landed in Shetland from 2000 to 2011.

## Places of Whitefish Landing

Two-thirds (66%) of the whitefish landed in Shetland in 2011 were landed in Lerwick, 19% in Scalloway, 11% in the North Isles (probably all in Cullivoe), and 3% elsewhere in Shetland (Figure 8). Landings were down in Lerwick (by 7%) and Scalloway (by 12%), but increased in the North Isles (by 18%).

The majority of landings of whitefish by non-Shetland vessels were made in Lerwick (79%), with the balance in Scalloway (12%) and Cullivoe (3%). Non-Shetland vessels accounted for 37% of whitefish landings in Lerwick, 19% of landings in Scalloway and only 9% in Cullivoe.

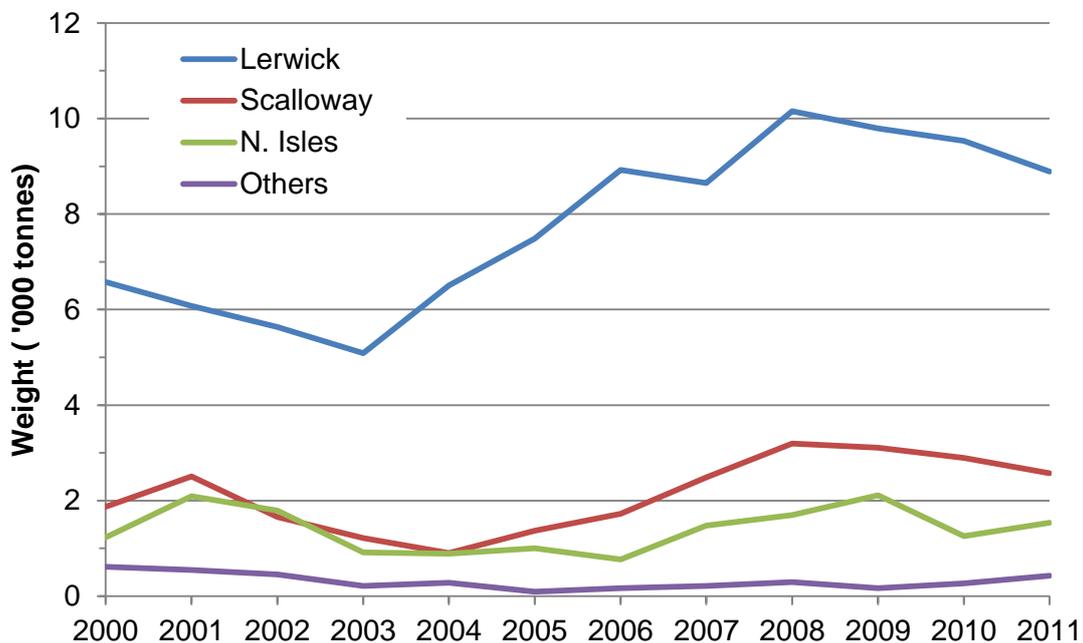


Figure 8 The weight of whitefish landed in Lerwick, Scalloway, the North Isles (primarily Cullivoe) and other Shetland ports in 2010.

## National Context

In a national context, 12% of all the whitefish landed in the UK by UK fishing vessels in 2011 was landed in Shetland. More whitefish was landed in Lerwick than in any other port in the UK except Peterhead. Scalloway ranked 9<sup>th</sup> and Cullivoe 12<sup>th</sup>.

## Pelagic Fish

*Pelagic fish include mackerel, herring, blue whiting and similar species. Past pelagic landings have included both landings for human consumption and for reduction to fish meal, although they are now entirely for human consumption.*

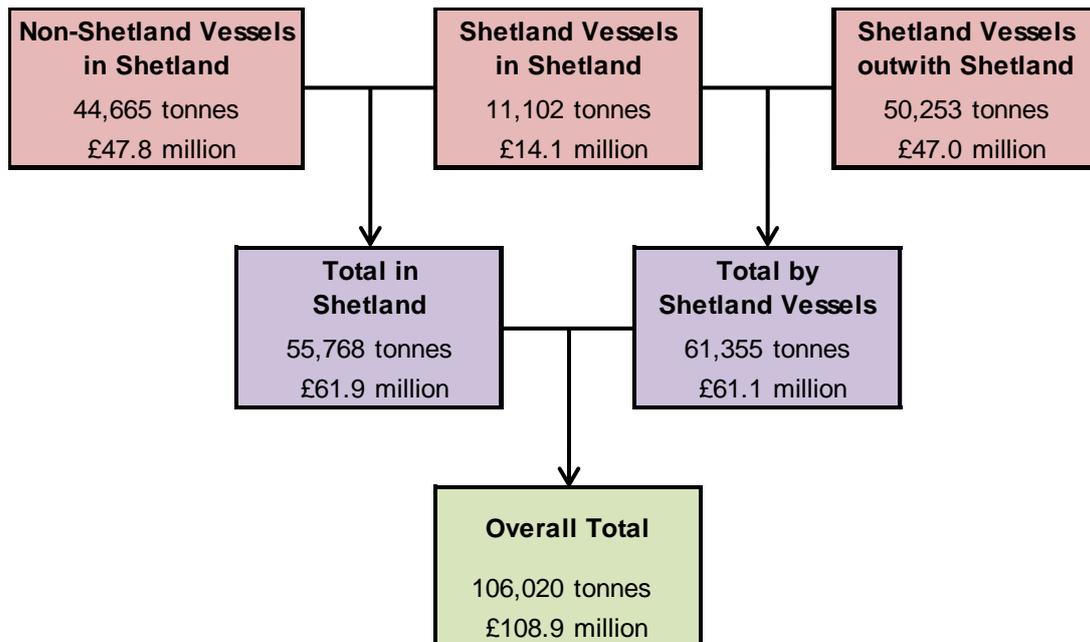


Figure 9 Summary breakdown of the weight and value of pelagic fish landed in Shetland and by Shetland vessels in 2011.

A total of just under 56,000 tonnes of pelagic fish, worth about £62 million were landed in Shetland in 2011, one fifth of it (20%) by local fishing vessels (Figure 9). With the exception of a very small quantity of hand-line caught mackerel, all pelagic fish were landed in Lerwick. Shetland fishing vessels landed a further 50,000 tonnes of pelagic fish worth £47 million, outside Shetland. Of this, the vast majority (89%) was landed in Norway, with most of the balance in Denmark.

Pelagic landings in Shetland were dominated by mackerel, which accounted for 78% of their weight and 91% of their value (£49 million). In addition to the main landings of mackerel at the Shetland Catch factory in Lerwick about 30 tonnes of handline caught mackerel, worth almost £100,000, caught by small boats was sold through the Shetland Seafood Auction in 2011.

## Fishing Landings in Shetland and by the Shetland Fleet - 2011

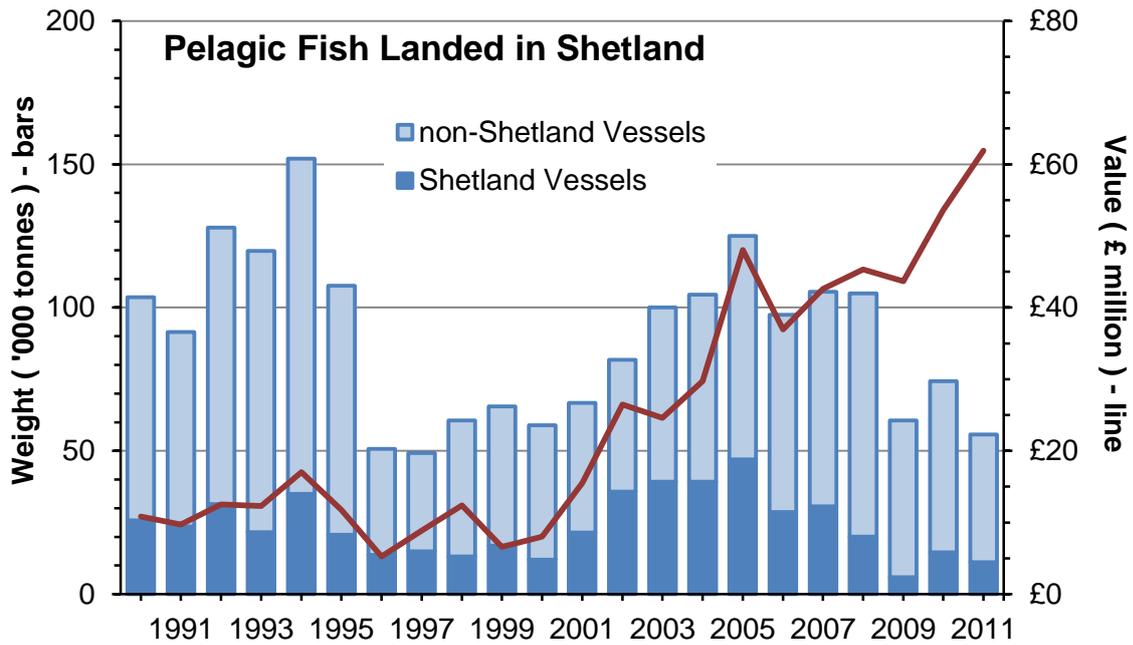


Figure 10 The weight (bars) and value (line) of pelagic fish landed in Shetland from 1990 to 2009.

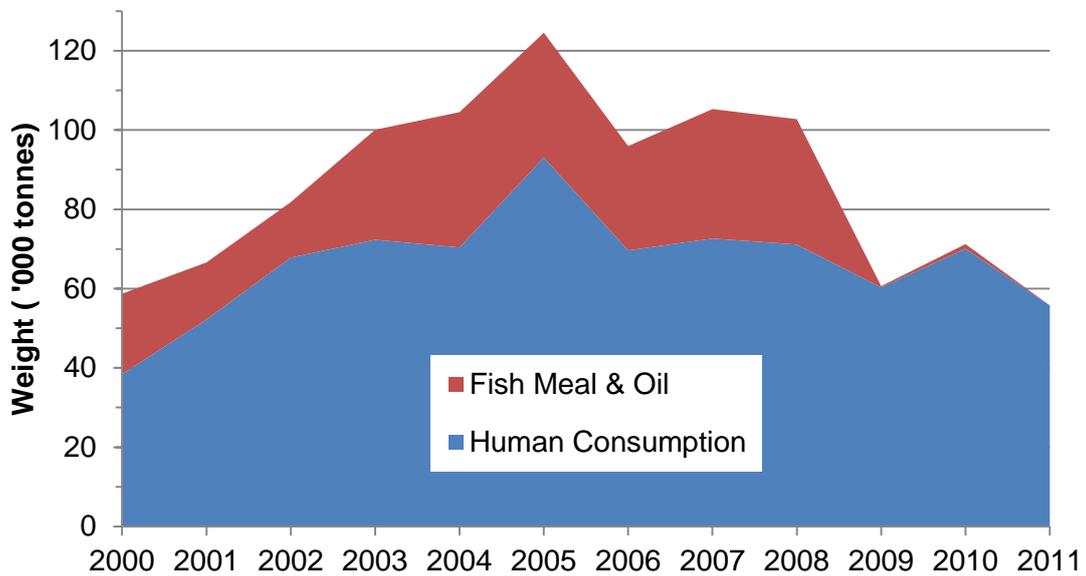


Figure 11 The quantities of pelagic fish landed in Shetland for human consumption and for reduction to fish meal and oil each year from 2000 to 2011.

## Fishing Landings in Shetland and by the Shetland Fleet - **2011**

The weight of pelagic fish landed in Shetland in 2011 was substantially (25%) lower than in 2010, although their value was 15% higher (Figure 10). This decrease was a result of a fall in landings of mackerel; landings of herring increased (by about 25%).

The sharp fall in the weight of pelagic landings after 2008 was largely due to the virtual cessation of landings of 'industrial' species - such as blue whiting - to the Shetland Fish Products fish meal factory on Bressay (which now concentrates on processing offal from salmon and pelagic fish processing). All of the pelagic fish landed in Shetland in 2011 was sold for human consumption; prior to 2009 about one quarter to one third of pelagic landings were typically for reduction to fish meal and oil (Figure 11).

Of the pelagic fish landed in Shetland by non-Shetland fishing vessels in 2011, just under half (48%) were landed by other Scottish vessels and 20% by Northern Irish vessels. Norwegian, Irish, Danish and Swedish vessels accounted for smaller proportions.

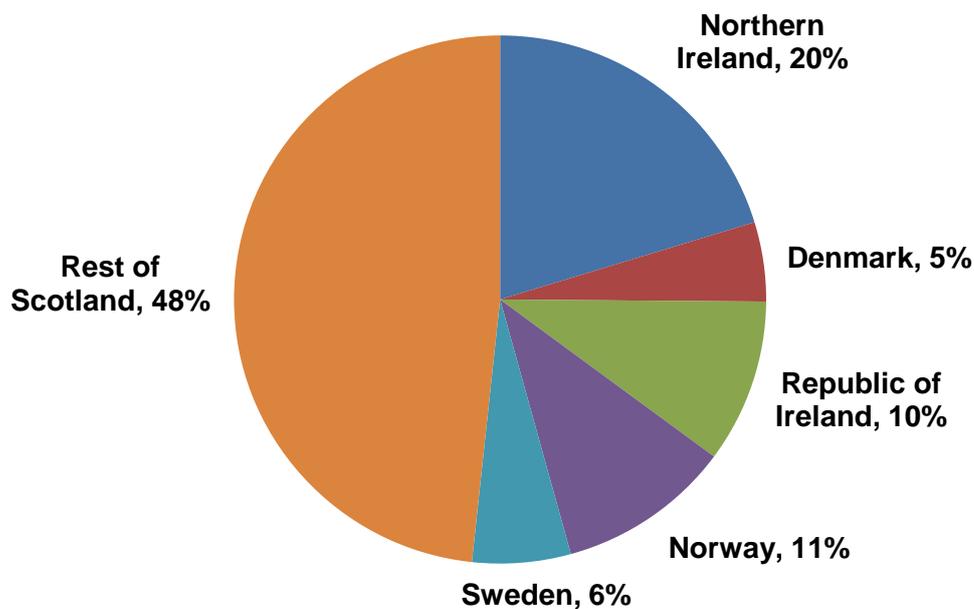


Figure 12 Breakdown of landings of pelagic fish in Shetland in 2011 by non-Shetland vessels.

## Shellfish

*Shellfish includes lobsters, crabs (brown, green and velvet), scallops and buckies (whelks). Squid and nephrops, although technically shellfish, are included with whitefish (above) rather than the other shellfish. As many of the landings of shellfish are of small quantities and scattered around many rural and island piers the official statistics for shellfish landings may be somewhat less accurate than for other species.*

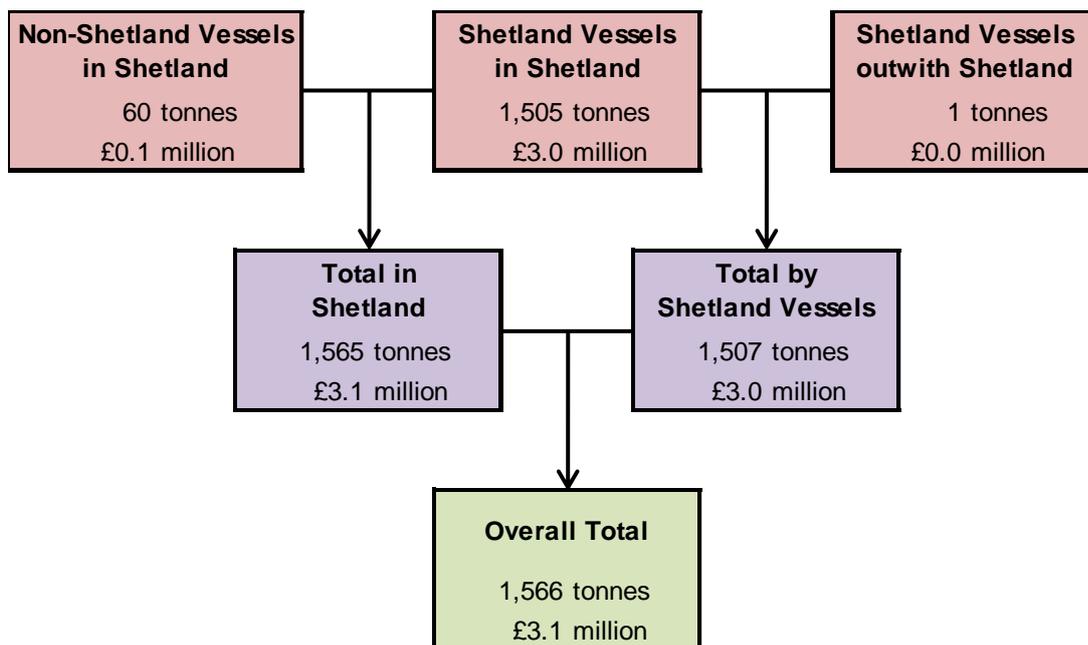


Figure 13 Summary breakdown of the weight and value of shellfish landed in Shetland and by Shetland vessels in 2011.

A total of just under 1,600 tonnes of shellfish worth £3.1 million were landed in Shetland in 2011, most of it (96%) by Shetland registered fishing vessels (Figure 13). (Much of the balance may have been landed by vessels based in Shetland but not registered here). Only a very small quantity of shellfish were landed outside Shetland by local vessels.

The weight and value of shellfish landings in Shetland in 2011 were both higher than in 2010 (by 5% and 9% respectively) (Figure 14).

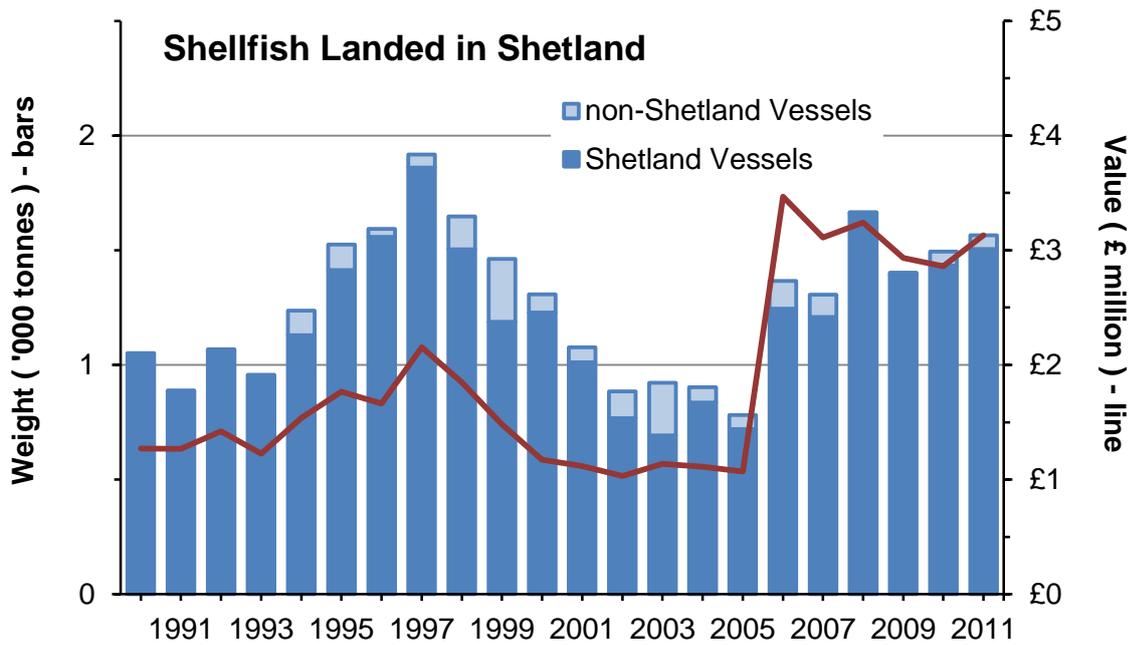


Figure 14 The weight (bars) and value (line) of shellfish landed in Shetland from 1990 to 2011.

Landings of shellfish were much more widely distributed around Shetland than was the case for landings of whitefish or pelagic fish. About two fifths (41%) of the shellfish landings were recorded in Lerwick, but only 1% in Scalloway. One quarter (23%) of landings were made in the Central Mainland (Toft, Voe, Sellaness, Vidlin, etc.), while the North Isles, West Mainland and Northmavine accounted for just under 10% each.

## Catches in the Waters Around Shetland

Figure 15 summarises the weight and value of landings in 2011 of all fish caught in the waters around Shetland. The most valuable individual areas are to the west and north of Shetland.

Landings from the whole area shown in Figure 15 totalled 145,000 tonnes in 2011, worth £214 million. A total of some 96,000 tonnes of fish, worth £140 million, were landed from the smaller, inner area (with the darker shading). These figures are overall totals for all species, all nationalities of vessel, and landings everywhere (not just in Shetland).



Figure 15 The weight and value of landings in 2011 of fish caught in the waters around Shetland (including landings everywhere by all vessels of all species). Individual rectangles are approximately 30 nautical miles on a side. The smaller 'inner' area referred to in the text is more darkly shaded.

## Fishing Landings in Shetland and by the Shetland Fleet - 2011

On a per-area basis, the value of landings from the whole area shown in Figure 15 averaged about £9,500 per square nautical mile (NM) (£2,800 / km<sup>2</sup>), while for the smaller 'inner' area the average was about £17,300 / NM<sup>2</sup> (£5,000 / km<sup>2</sup>). However, there is substantial variation between areas, and within the squares shown in Figure 15, with some areas having much higher averages.

The weights and values of fish landed from the waters around Shetland both increased substantially from 2010 to 2011 (Figure 16). Landings from the whole area shown in Figure 15 increased by 12% in weight and 44% in value, while those from the smaller 'inner' area immediately around Shetland increased by 18% and 58% respectively.

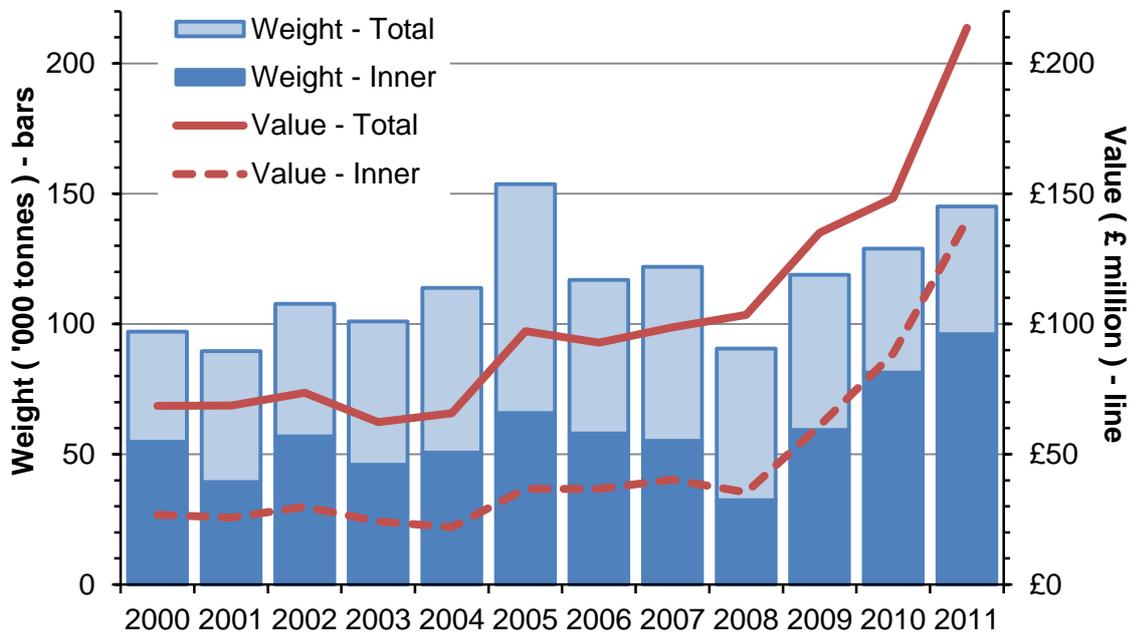


Figure 16 The weights (bars) and values (lines) of all fish landed from the area around Shetland shown in Figure 15, and from the smaller 'inner' area.

## **Landings in 2012 (Provisional)**

Official figures for landings of fish in Shetland in 2012 will not be available until the latter part of 2013.

However, figures from the Shetland Seafood Auction Co. indicate that the weight of whitefish sold through the auction in 2012 was slightly greater than in 2011 (by 6%), although their value was lower (by about 16%). (It is estimated that about 85% of whitefish landed in Shetland is sold through the Shetland Seafood Auction.)

Figures from Shetland Catch Ltd. indicate that overall the weight of pelagic fish landed in Shetland in 2012 was about 10% less than in 2011. Landings of mackerel were down by more than one third (mainly due to reduced market demand as a result of the additional supply from Iceland and Faroe), but this was partly offset by increases in landings of herring (up 59%) and blue whiting.