



NAFC Marine Centre  
University of the  
Highlands and Islands

# Fish Landings in Shetland and by the Shetland Fleet

## 2010

November 2011



# **Fish Landings in Shetland and by the Shetland Fleet 2010**

**November 2011**

**Ian R. Napier**

( [ian.napier@nafc.uhi.ac.uk](mailto:ian.napier@nafc.uhi.ac.uk) )

# 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 2010 (the last year for which detailed data are available).

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

## Further Information

For further information, or any queries, please contact:

**Ian R. Napier,** Tel. 01595 772308, Email: [ian.napier@nafc.uhi.ac.uk](mailto:ian.napier@nafc.uhi.ac.uk)

---

\* 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

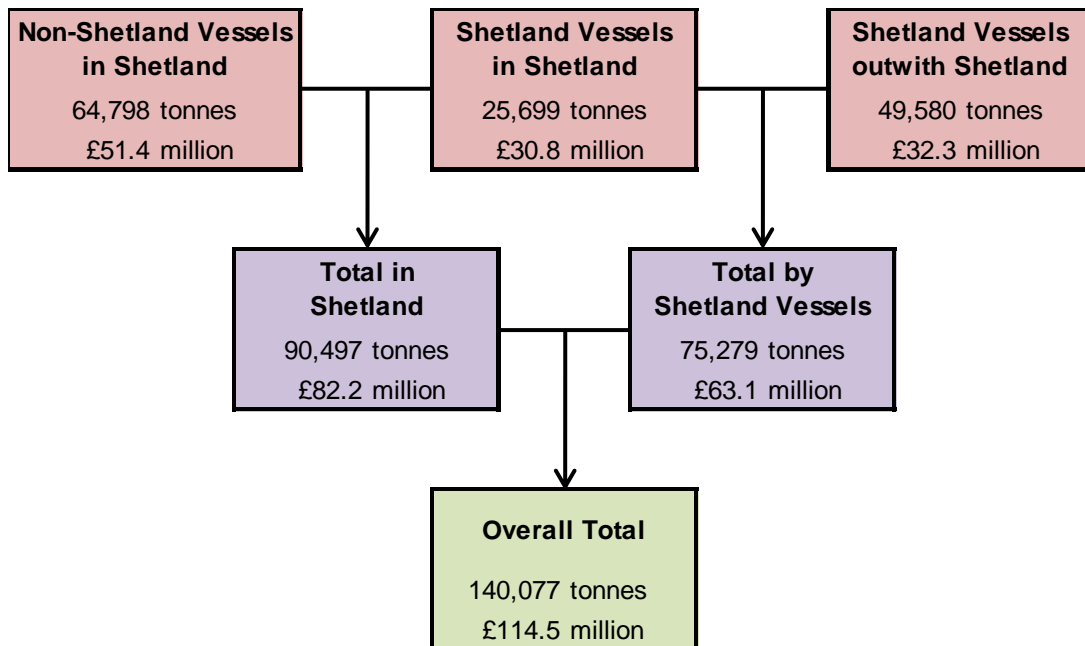


Figure 1 Summary breakdown of the weight and value of all fish landed in Shetland and by Shetland vessels in 2010.

A total of just over 90,000 tonnes of fish, worth £82 million, were landed in Shetland in 2010 (Figure 1). Of these landings, Shetland fishing vessels accounted for almost 26,000 tonnes (28%) worth £31 million (37%).

The weight and value of fish landed in Shetland in 2010 were both considerably higher than in 2010 (Figure 2). The increase in weight (16%) comes after the sharp fall in 2009, but the total weight landed remains well below that seen in the years prior to 2009. The increase in value (12%) comes after a slight fall in 2009 and renews an upward trend which has been seen over most of the last decade. While the weight of fish landed in Shetland increased by only 7% from 1999 to 2010, their value more than quadrupled over the same period. The increase from 2009 to 2010 was almost entirely in landings of pelagic fish (as was the decrease from 2008 to 2009), and is discussed below (p. 9).

Pelagic species (mackerel, herring, etc.) accounted for the vast majority of the fish landed in Shetland (82% by weight, 65% by value), but had the smallest unit-value (Table 1). Whitefish (cod, haddock, monks, etc.) accounted for 16% of the weight of landings but 29% of their value. Shellfish (crabs, scallops, etc.) accounted for the

## Fishing Landings in Shetland and by the Shetland Fleet - 2010

smallest proportion of landings (2% by weight, 5% by value) but had the highest unit-value.

Shetland fishing vessels landed an additional 50,000 tonnes of fish worth about £32 million, most of it pelagic, outside Shetland. This brings the notional total of 'Shetland' fish landings to 140,100 tonnes and £115 million (i.e. landings in Shetland plus landings elsewhere by Shetland vessels). This total weight is higher than in 2009 (by about 2%), but the value is lower (by about 3%).

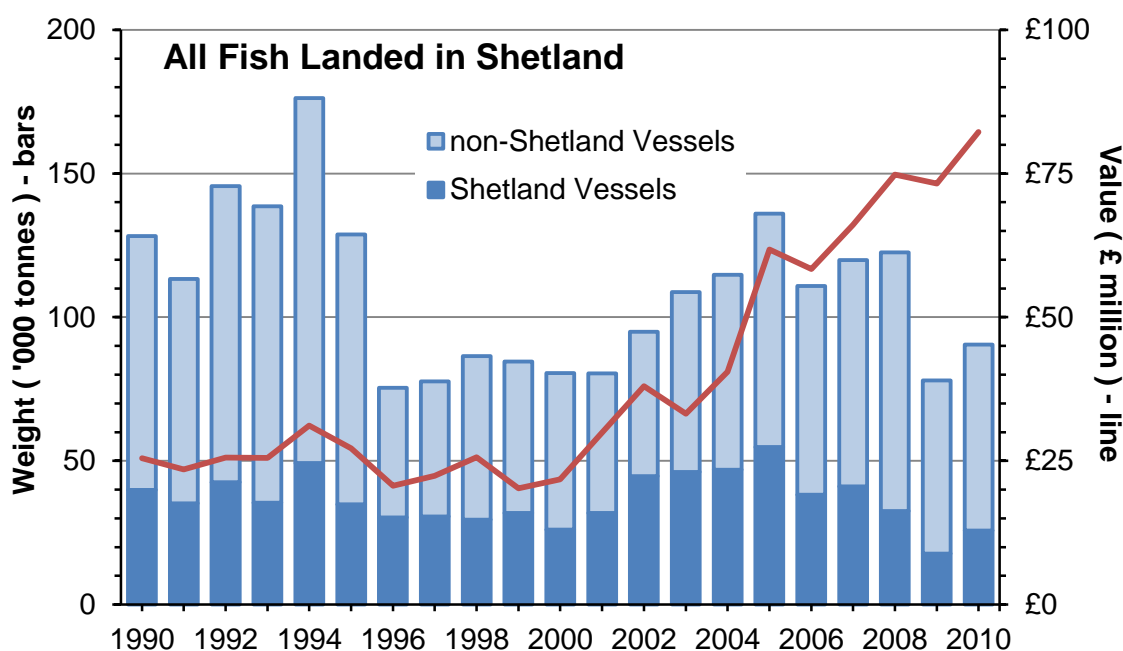


Figure 2 The weight (bars) and value (line) of all fish landed in Shetland from 1990 to 2010.

Table 1 The total weights and values of fish landed in Shetland in 2010 by species group.

	Weight		Value		Unit Value
	tonnes	%	£ m	%	£ / kg
<b>Pelagic Fish</b>	74,339	82%	£53.62	65%	£0.72
<b>Whitefish</b>	14,462	16%	£24.18	29%	£1.67
<b>Shellfish</b>	1,696	2%	£4.40	5%	£2.59
<b>Total</b>	90,497		£82.20		£0.91

## 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 vessels.

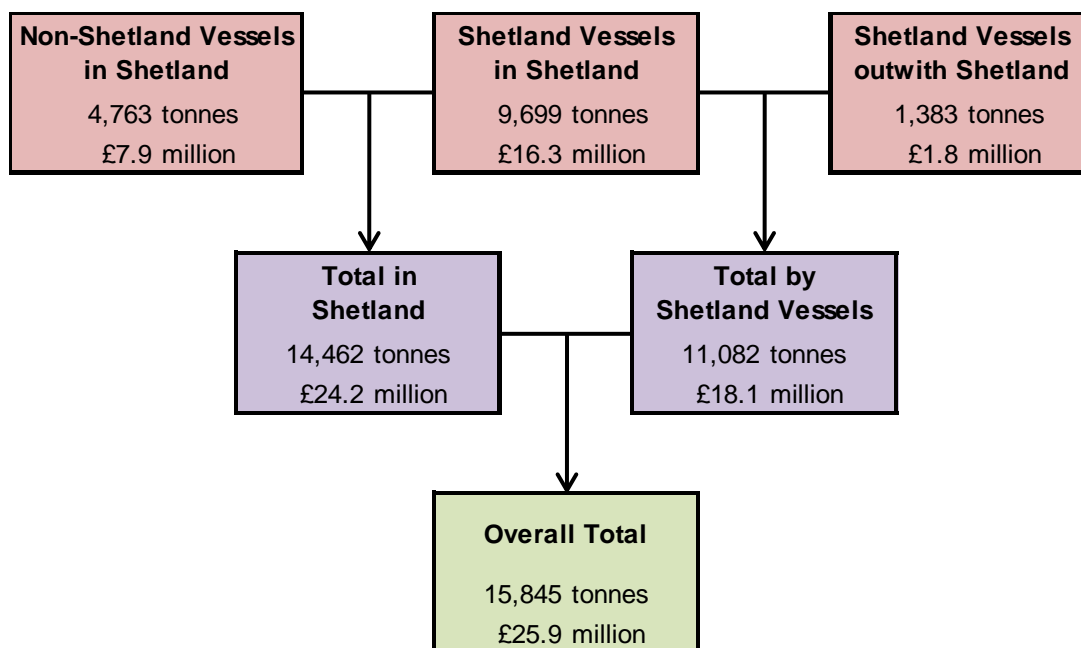


Figure 3 Summary breakdown of the weight and value of whitefish landed in Shetland and by Shetland vessels in 2010.

A total of 14,500 tonnes of whitefish worth about £24 million were landed in Shetland in 2010, two thirds of it (67%) by local fishing vessels (Figure 3). Shetland fishing vessels landed a total of 11,000 tonnes of whitefish worth just over £18 million, most of it (88%) in Shetland.

Whitefish landings in Shetland in 2010 were markedly less than in 2009, falling by 8% in weight and 5% in value (Figure 4). This is the second year in a row that whitefish landings have declined, and the decrease was greater in 2010 than in the previous year. The decline affected landings by both Shetland vessels (down 6%) and non-Shetland vessels (down 11%). The biggest fall was in landings by vessels from elsewhere in Scotland, which were down by 16%, after several years of increase.

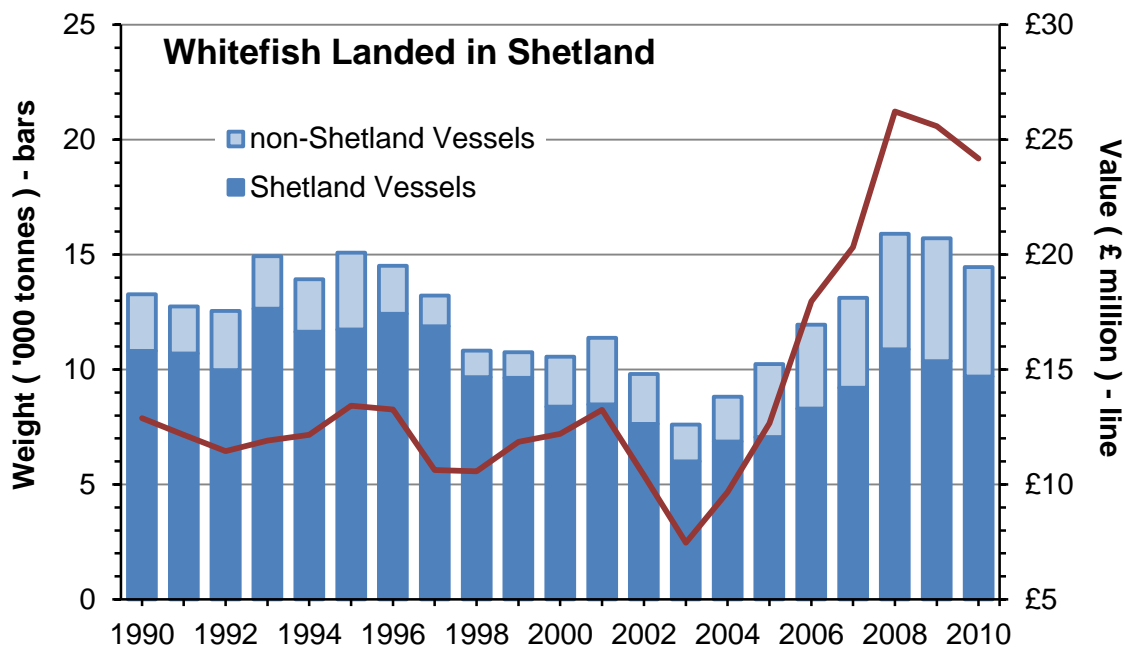


Figure 4 The weight (bars) and value (line) of whitefish landed in Shetland from 1990 to 2010.

The declines in whitefish landings in Shetland are believed to be primarily a result of tighter fisheries regulations in 2010, in particular the 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 82% (by weight) of the fish landed in Shetland. The remainder is shipped directly south, either for sale at Mainland fish markets or straight to processors.

Although they landed less whitefish in Shetland, the total quantity of whitefish landed by Shetland fishing vessels (everywhere) in 2010 was actually slightly higher than in 2009 (up 0.5%) and their value was 4% higher (Figure 5). The total weight and value of whitefish landings by Shetland vessels thus remained virtually unchanged from 2008 to 2010 (despite a temporary dip in their value in 2009).

These totals have been maintained by substantial increases in the quantities of whitefish being landed outside Shetland by local vessels; their weight and value increased about six-fold from 2008 to 2010. In the past, such landings largely reflected 'tripping' to mainland markets, but they now result mainly from local vessels travelling further afield to find alternative fishing opportunities. Some local whitefish vessels have been fishing as far afield as the English Channel.

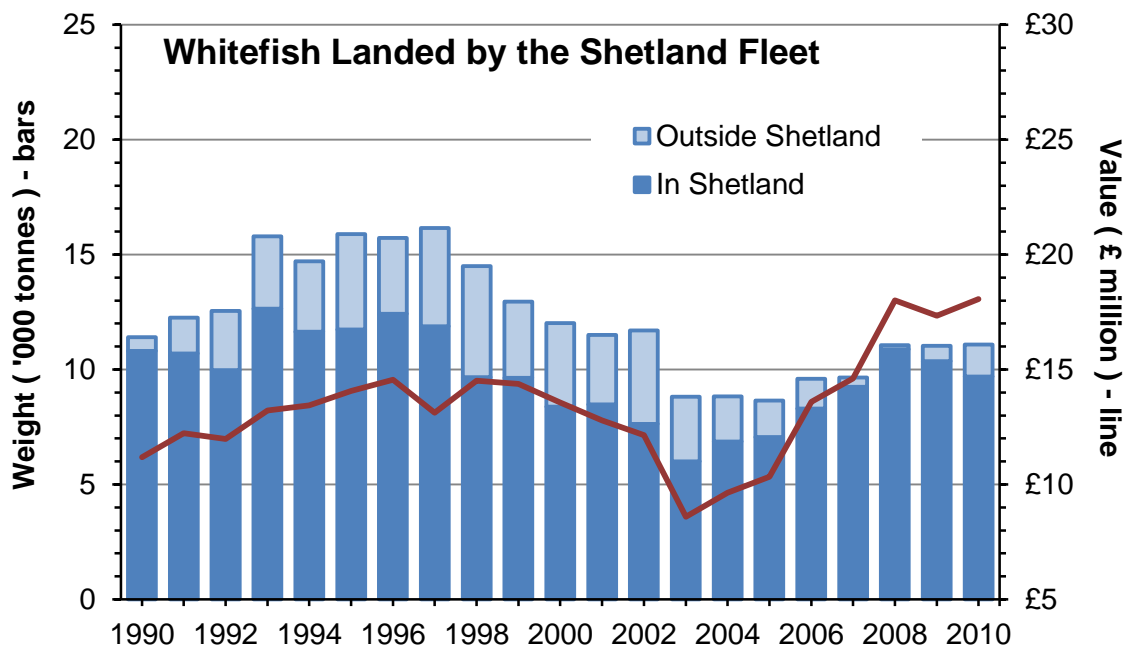


Figure 5 The weight (bars) and value (line) of whitefish landed by Shetland fishing vessels from 1990 to 2010.

### Composition of Landings

For the first time ever, cod was the single most valuable whitefish species landed in Shetland in 2010 (Table 2). Monks, which have topped the table for the last few years, fell to second place and haddock, which have traditionally been ahead of cod, fell to third.

These changes reflect substantial changes that have taken place in the composition of whitefish landings in Shetland (Figure 6). Most noticeable, have been the steady rise in the quantities of cod and saithe being landed, and the declines in landings of haddock and monks. These changes are believed to reflect changes in patterns of fishing activity resulting from management measures, such as restrictions on days at sea.



## Fishing Landings in Shetland and by the Shetland Fleet - **2010**

Table 2 The top-10 whitefish species (by value) landed in Shetland in 2010.

	<b>Weight</b>	<b>Value</b>
<b>Cod</b>	21%	24%
<b>Monks</b>	11%	23%
<b>Haddock</b>	17%	13%
<b>Whiting</b>	12%	8%
<b>Saithe</b>	15%	8%
<b>Megrim</b>	4%	8%
<b>Ling</b>	6%	4%
<b>Prawns (Nephrops)</b>	2%	3%
<b>Squid</b>	2%	3%
<b>Lythe (Pollack)</b>	1%	1%
<b>Others</b>	8%	6%
<b>TOTAL</b>	<b>14,462 t.</b>	<b>£24.2 m</b>

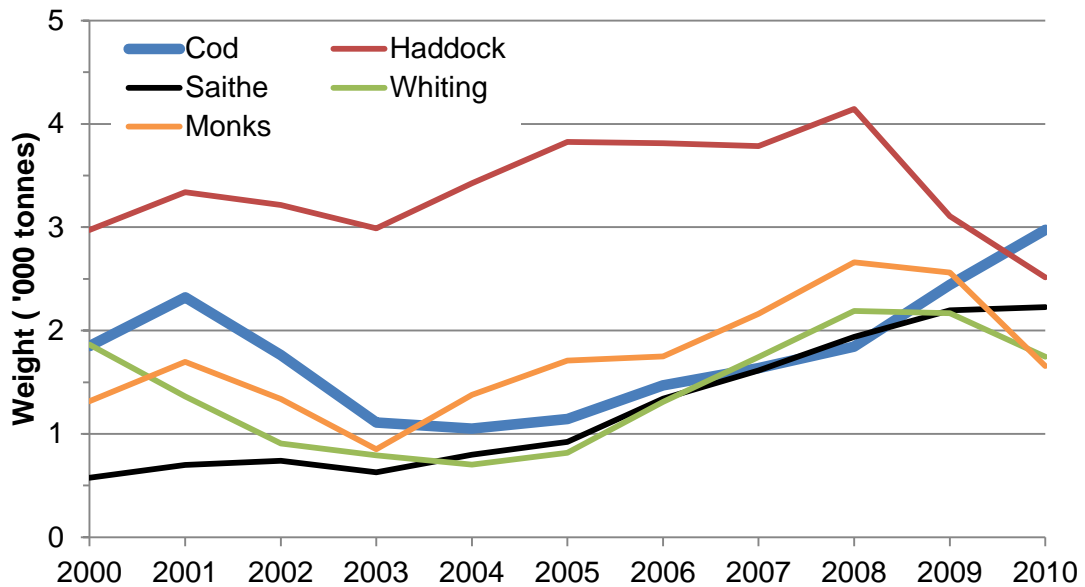


Figure 6 The weights of the principal whitefish species landed in Shetland from 2000 to 2010.

## Places of Landing

Just over two-thirds (68%) of the whitefish landed in Shetland in 2010 were landed in Lerwick, 21% in Scalloway, 9% in the North Isles (probably all in Cullivoe), and only 2% elsewhere in Shetland (Figure 7). Landings were down in Lerwick (by 3%), Scalloway (7%) and, in particular, the North Isles (68%).

The majority of landings of whitefish by non-Shetland vessels were made in Lerwick (83%), with the balance in Scalloway (13%) and Cullivoe (3%). Non-Shetland vessels accounted for 42% of whitefish landings in Lerwick, 20% of landings in Scalloway and only 8% in Cullivoe.

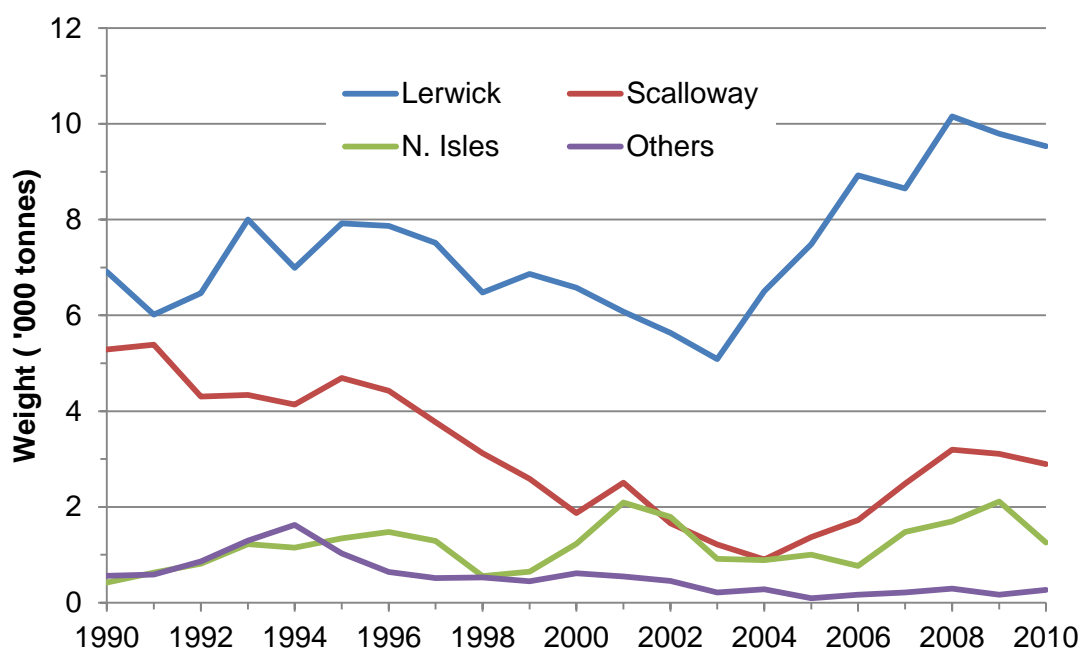


Figure 7 The weight of whitefish landed in Lerwick, Scalloway, the North Isles (primarily Cullivoe) and other Shetland ports in 2010.

## Pelagic Fish

*Pelagic fish include mackerel, herring, blue whiting and similar species. Pelagic landings include both landings for human consumption and for reduction to fish meal.*

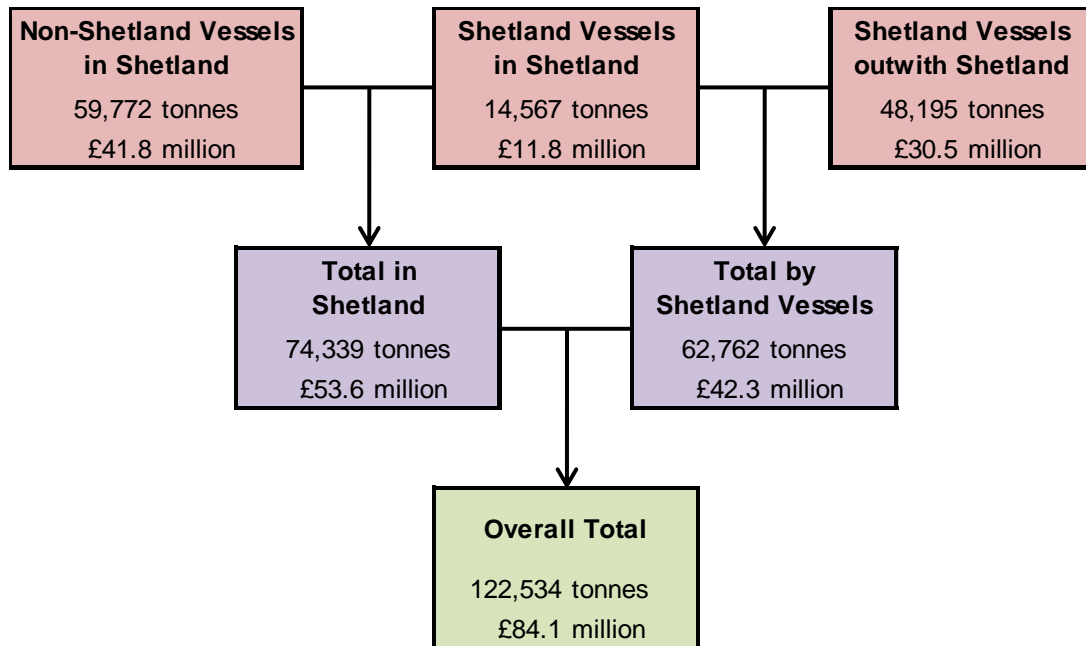


Figure 8 Summary breakdown of the weight and value of pelagic fish landed in Shetland and by Shetland vessels in 2010.

A total of just over 74,000 tonnes of pelagic fish, worth about £54 million were landed in Shetland in 2010, one quarter (24%) of it by local fishing vessels (Figure 8). 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 48,000 tonnes of pelagic fish worth £30 million, outside Shetland. Of this, three-quarters (73%) was landed in Norway and 13% in Denmark.

The weight and value of pelagic fish landed in Shetland in 2010 were both 23% greater than in 2009 (Figure 9). Although the weight remained well below the levels recorded in previous years, the value reached a new high. There were increases in landings of both mackerel (up 24%) and herring (up 59%).

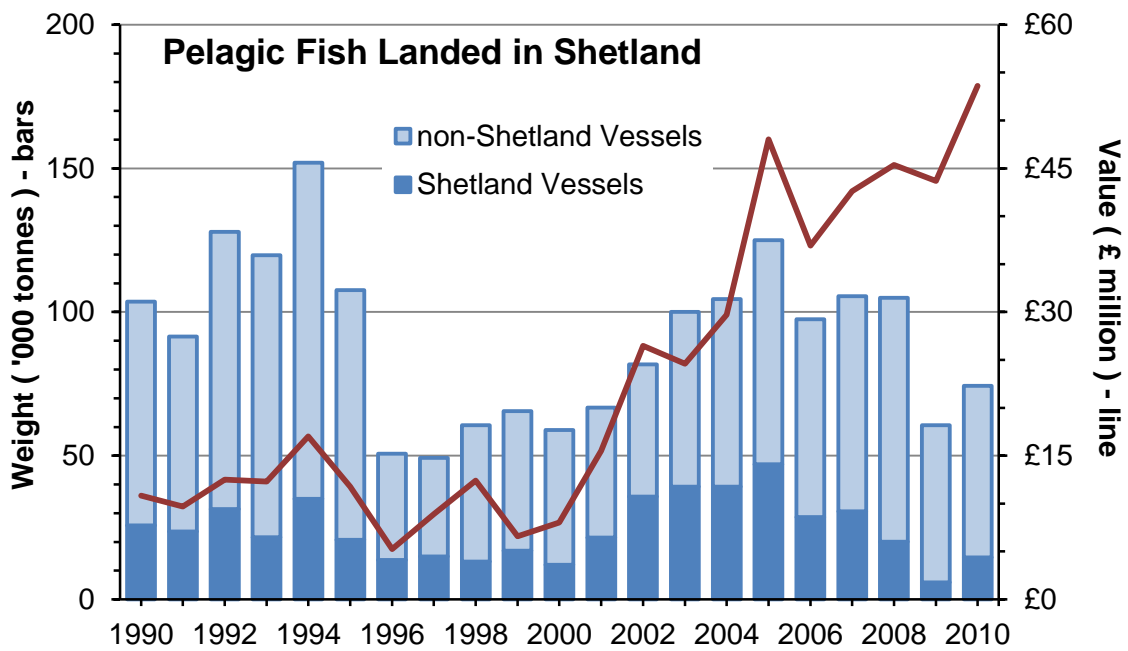


Figure 9 The weight (bars) and value (line) of pelagic fish landed in Shetland from 1990 to 2009.

The decline in the weight of pelagic landings from 2008 to 2009 was largely due to the virtual cessation of landings of 'industrial' species to the Shetland Fish Products fish meal factory on Bressay (which now concentrates primarily on processing offal from salmon and pelagic fish processing). Virtually all (98%) of the pelagic fish landed in Shetland in 2010 was sold for human consumption; prior to 2009 about one quarter to one third of the landings were typically for reduction to fish meal and oil (Figure 10).

Pelagic landings were dominated by mackerel, which accounted for 78% of their weight and 91% of their value (£49 million).

Of the pelagic fish landed in Shetland by non-Shetland fishing vessels in 2010, just over one third (39%) were landed by other Scottish vessels, 20% by Danish vessels and 13% by Northern Irish vessels (Figure 11). Vessels from Norway, the Republic of Ireland (Eire) and Sweden accounted for smaller proportions.

## Fishing Landings in Shetland and by the Shetland Fleet - 2010

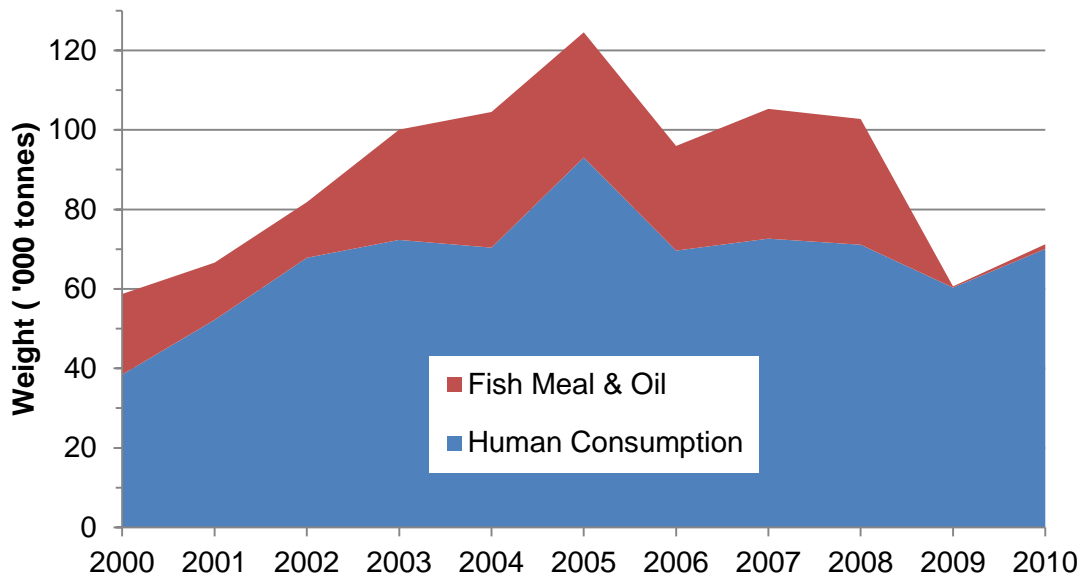


Figure 10 The quantities of pelagic fish landed in Shetland for human consumption and for reduction to fish meal and oil each year from 2000 to 2010.

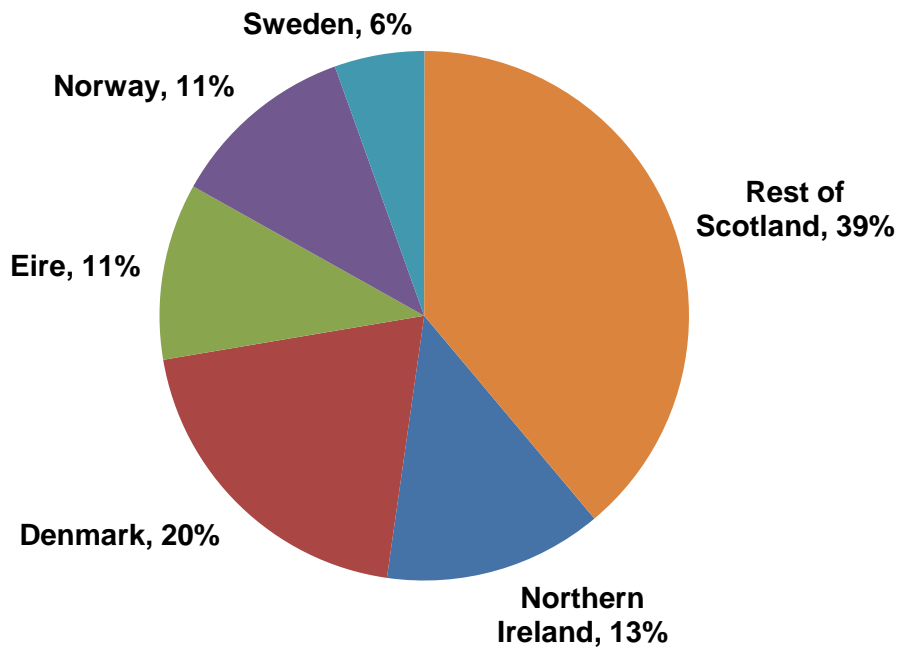


Figure 11 Breakdown of landings of pelagic fish in Shetland in 2010 by non-Shetland vessels.

## Shellfish

Shellfish includes lobsters, crabs (brown, green and velvet), scallops and buckies (whelks). Squid and nephrops, although technically shellfish, are included with the whitefish, above. As many of the landings 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.

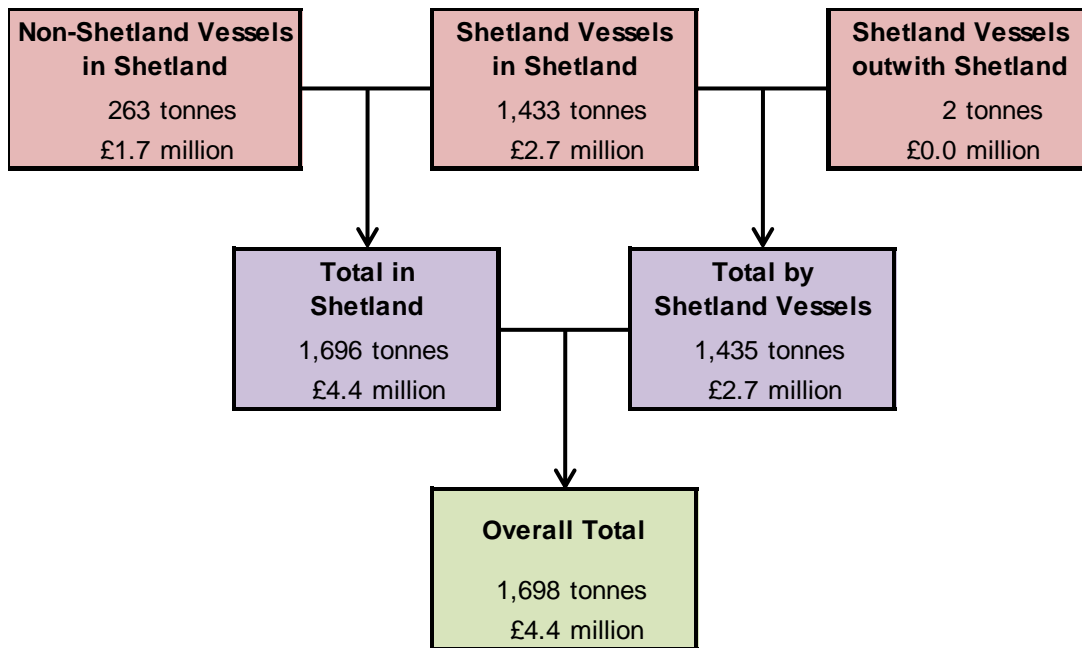


Figure 12 Summary breakdown of the weight and value of shellfish landed in Shetland and by Shetland vessels in 2010.

A total of 1,700 tonnes of shellfish worth £4.4 million were landed in Shetland in 2010, most of it (84%) by Shetland registered fishing vessels (Figure 12). (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 of shellfish landed in Shetland in 2010 was 5% higher than in 2009 and reached its highest level of many years (Figure 13). The value of landings was up by 11%, reaching a new high. (The high levels of shellfish landings in the 1990s were associated with the substantial, but short-lived, fishery for 'buckies' - whelks.)

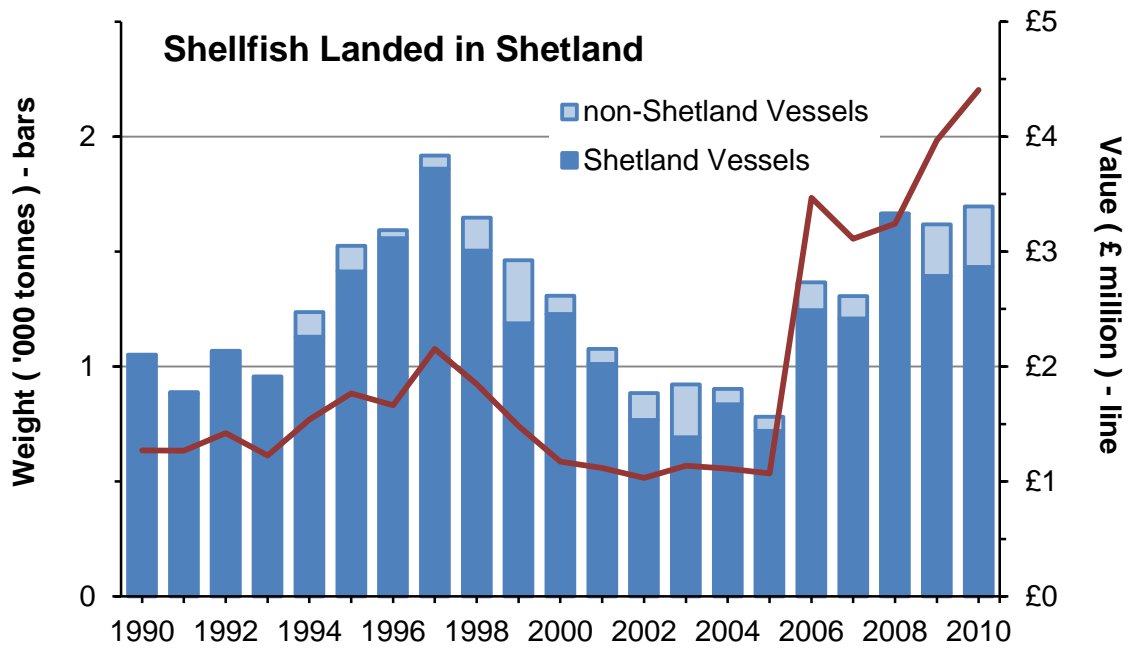


Figure 13 The weight (bars) and value (line) of shellfish landed in Shetland from 1990 to 2009.

Landings of shellfish were much more widely distributed around Shetland than was the case for landings of whitefish or pelagic fish. About one quarter (24%) of the shellfish landings were recorded in Lerwick, but only 3% in Scalloway. One third (34%) of landings were made in the Central Mainland (Toft, Voe, Sellaness, Vidlin, etc.), while the North Isles, West Mainland and Northmavine each accounted for 10%.

## Catches in the Waters Around Shetland

Figure 14 summarises the weight and value of landings in 2010 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 14 totalled 129,000 tonnes in 2010, worth some £148 million. A total of some 81,000 tonnes of fish, worth £89 million, were landed from the smaller, inner area (with the darker shading). These figures are overall total for all species, all nationalities of vessel, and landings everywhere (i.e. not just in Shetland).



Figure 14 The weight and value of landings in 2010 of fish caught in the waters around Shetland (including landings everywhere of all species, and all vessels). 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 - 2010

On a per-area basis, the value of landings from the whole area shown in Figure 14 averaged about £6,600 per square nautical mile (NM) (£1,900 / km<sup>2</sup>), while for the smaller 'inner' area the average was about £10,900 / NM<sup>2</sup> (£3,200 / km<sup>2</sup>). However, the average values were as high as £29,000 / NM<sup>2</sup> (£8,400 / km<sup>2</sup>) in the square immediately west of Foula (see Figure 14), and £15,800 / NM<sup>2</sup> (£4,600 / km<sup>2</sup>) in the square immediately west of Yell and Unst.

The weights and values of fish landed from the waters around Shetland both increased substantially from 2009 to 2010 (Figure 15). The weight and value of landings from the whole area increased by 9% and 10% respectively, but those from the smaller 'inner' area immediately around Shetland increased by 37% and 45% respectively. Increases in landings of pelagic fish accounted for most of these increases.

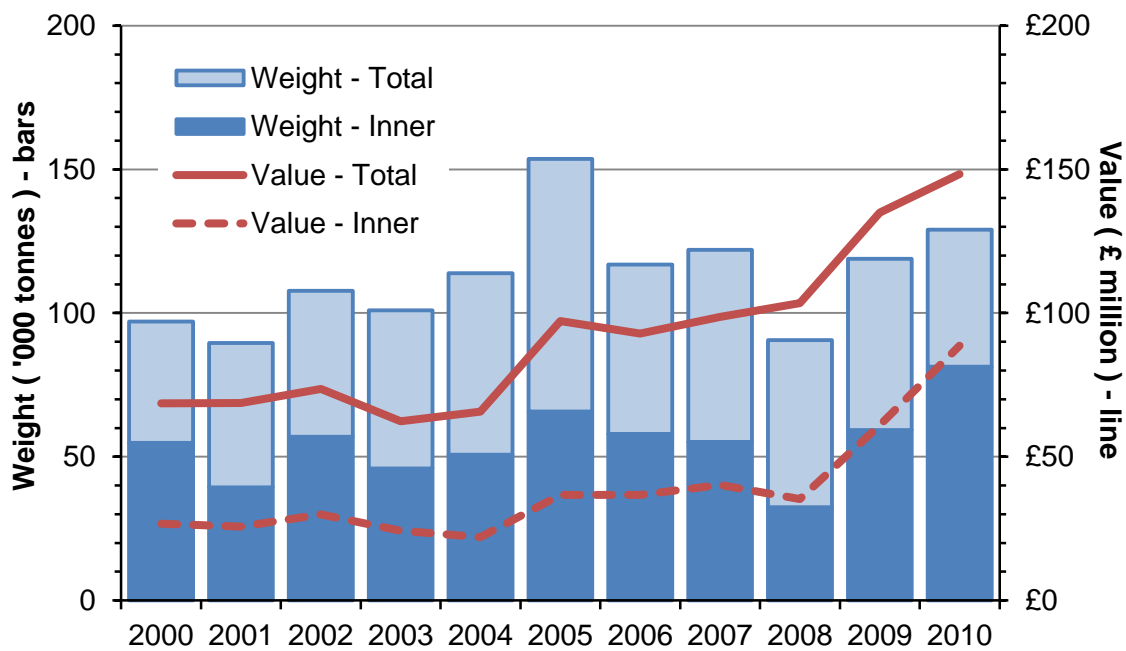


Figure 15 The weights (bars) and values (lines) of all fish landed from the area around Shetland shown in Figure 14, and from the smaller 'inner' area.

## **Outlook for 2011**

Official figures for landings of fish in Shetland in 2011 will not be available until the latter part of 2012.

However, figures from the Shetland Seafood Auction Co. indicate that the weight of whitefish sold through the auction in the first 10 months of 2011 (Jan. - Oct.) was almost the same as in the same period of 2010 (actually 0.5% higher), while the value was about 10% higher. While this does not include all whitefish landed in Shetland, and this trend may not continue until the end of the year, it does suggest that a further decline in whitefish landings in Shetland is less likely in 2011.

On the other hand, landings of pelagic fish in 2011 are likely to be lower. Figures from Shetland Catch Ltd., indicate that the weight of pelagic fish landed in 2011 will be about 20% lower than in 2010 (largely due to greater competition for landings), although the value of these landings is likely to be higher.