Marine Management Organisation

UK Sea Fisheries Statistics: Unscheduled Corrections

Publication Date: 8 October 2024

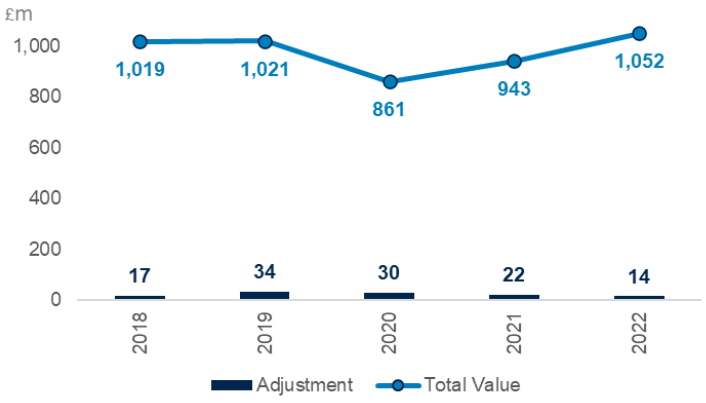
This statistical report provides a summary of the corrections made to landing data between 2018 and 2022, that form part of the UK Sea Fisheries Annual Statistics. These adjustments reflect changes to previously reported information, as opposed to changes in industry or economic conditions.

Key Statistics

The quantity of landings, as measured by live weight, has been adjusted upwards by average of 1.0% in each year between 2018 and 2022. Annual adjustments range from 0.4% (up 2,812 tonnes) in 2018 and 1.7% (up 10,712 tonnes) in 2020.

These upwards adjustments are largely driven by increase in reported landings, following manual amendments made to include records from Scottish vessels landing abroad that were previously missing.

Total value of all landings by UK vessels, including adjustment, 2018 to 2022, £m



The reported value of landings has been adjusted upwards by average of 2.4% in each year between 2018 and 2022. Annual adjustments range from 1.4% (up £14 million) in 2022 and 3.6% in 2020 (up £30 million).

There is no single driver of adjustments in value. Additional records and changes to exchange rates have both resulted in changes in value and influenced average value calculations used to compensate for missing values in the database.

The additional Mackerel landings result in the largest adjustment for a single species, for both landing quantity (up by 17,316 tonnes) and value (up £36.9 million) over the five-year period 2018 to 2022.

The largest downwards adjustment in value was for Blue Whiting (down £2.5 million) over five years.

There are also adjustments to landing quantity and value by vessel size, gear type and area of capture.

These changes are in line with other findings or represent a re-distribution of previously reported landings.

Notes

Corrections have been made to account for two issues:

- Landing records that were not represented in the final processed dataset
- The exchange rate applied to sales reported in a currency other than Sterling was fixed as of 2015

Changes have also been made to apply improvements in methodology to improve consistency and comparability over time. These adjustments have affected both quantity of landings (live and landed weight) and value to some extent. However, it is not possible to determine the impact of each individual adjustment.

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Acknowledgments

Thanks goes to everyone who has had a hand in identifying, investigating and resolving the data quality concerns identified within the fisheries database systems, and their ongoing commitment to statistical quality. It has been a truly joint endeavour.

This includes colleagues across the Marine Management Organisation, Centre for Environment, Fisheries and Aquaculture Science, Marine Directorate (Scottish Government), Department for Agriculture, Environment and Rural Affairs, Northern Ireland, Welsh Government and Isle of Man Government.

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About these statistics

On 24 July 2024, the Marine Management Organisation (MMO) announced a delay[1] to the release of the UK Sea Fisheries Statistics 2023 publication. This delay was because of data quality concerns identified with landings data held within the MMO and UK Fisheries Authorities shared database.

Corrections have now been made to account for two issues:

- Landing records that were not represented in the final processed dataset
- Exchange rates applied to sales reported in a currency other than Sterling was fixed as of 2015

Additional changes have been made to apply improvements in methodology to improve consistency and comparability over time.

The adjustments made will have affected both quantity of landings (live and landed weight) and value.

This statistical report provides a summary of the corrections made to the landing data for the years 2018 to 2022 and is part of the UK Sea Fisheries Annual Statistics. It highlights the adjustments made as a result of corrections and the impact they may have.

As such, any changes presented here reflect changes to the reported information, as opposed to changes in industry or economic conditions. Equally, the adjustments do not reflect any direct impact on the fishing industry, as the actual quantity of landings, or the value received for any sale, has not changed.

Alongside this statistical report, the MMO have published:

- A revised underlying dataset for the years 2018 to 2022, which details both the adjusted quantity of landings (live weight and landed weight) and value (£s) data, and the associated adjustment made.
- All provisional monthly releases in 2023 and 2024 that have been affected by the corrections, as well as the associated underlying datasets, for:
    - Monthly UK Sea Fisheries Statistics[2]
    - Provisional Non-Quota uptake by UK vessels in EU waters[3]

The UK fisheries database is a live database. Data in this release are likely to be affected by these corrections and usual business revisions processes. However, it is not possible to determine to what extent any changes are solely due to the corrections or usual revisions process.

The MMO is committed to providing the most accurate picture of UK fisheries performance. Therefore, there will be an ongoing review of data collection, handling and presentation processes to ensure the highest level of quality possible within future statistical releases.

[1] https://www.gov.uk/government/publications/delay-to-sea-fisheries-statistics-2023
[2] https://www.gov.uk/government/collections/monthly-uk-sea-fisheries-statistics
[3] https://www.gov.uk/government/collections/provisional-non-quota-uptake-by-uk-vessels-in-eu-waters

Summary of amendments made

Landing records

It was discovered that landing records submitted by fishers were not flowing through the database architecture as expected. This resulted in records being omitted from the final, processed database tables. It was anticipated that landing records were therefore being underreported.

There was no single fault that caused this. Rather, a series of small issues which on their own would have been within the expected tolerance for administrative data like these. However, when combined, there has been a more substantial impact leading to the need for corrections to be made.

This affects vessels of all sizes, all UK fishing authorities and all areas of the UK, as well as all species. Although the overall impact is small in each year, the impact will be different for each of these different breakdowns.

Exchange rates

The value of landings is generated from the recording of the first sale of landings, reported via submission of sales notes. Any sales recorded in a currency other than Sterling (GBP) are converted to GBP for consistency. During the investigations into the landing data, it was found that the exchange rate used for this conversion had been fixed as of 2015. Therefore, the associated value data did not account for any changes in exchange rate since then.

This applies to a proportion of sales notes from landings of UK vessels into foreign ports, specifically those reported in Euro or Danish Kroner. Any sales made in another currency have been converted to GBP before submitting the sales note. These records have not been changed.

To account for changes in exchange rates over time, an average annual spot rate has been applied to sales in each year 2018 to 2023. From the beginning of 2024, a monthly conversion rate has been applied to better reflect regular fluctuations in exchange rates

This issue directly affects those sales notes reported in a non-GBP currency, with consequential impacts from reprocessing records to update the exchange rate used.

Improved processing methodology

Re-processing of the database to implement any corrections will have captured any new or different information in the system since the data were originally processed for publication. This is part of usual business practices but will lead to some changes in the reported data.

Following a data quality exercise by Scottish Government[4], manual amendments to account for landing records for Scottish vessels that were previously missing have been included in these data. These amendments were largely included in previous reported statistics for 2021 and 2022 and have been included for 2018 to 2020 for the first time.

Methodologies to adjust for values that are substantially higher than expected or reported zero values use a calculated average value to provide a more realistic representation of fishing activity. These methodologies have been applied to data for 2018 and 2019 for the first time, improving coherence and comparability over time.

[4] https://www.gov.scot/publications/scottish-sea-fisheries-statistics-technical-manual/pages/data-quality/

Impact on landing data

Taken together, these changes will impact both landing weight (live and landed) and value. It is not possible to determine the extent to which each adjusted value has been influenced by each of these changes. For more recent data, it is likely there are also changes resulting from usual business practices, aimed at validating data as they are submitted by fishers.

The following summarises some of the notable changes that have occurred

- Additional landing records may have increased the quantity of landings (both live and landed weight)
- Correcting the currency conversion may have increased the value of landings into foreign ports.
- Additional landing records may have changed the average value applied in cases where zero values are recorded.
- A change in value resulting from an updated currency conversion may have changed the average value applied to cases where zero values are recorded.
- Additional landing records may have changed how landings have been apportioned to fishing area, without influencing the total quantity or value of landings.
- The average price methodology previously applied to data for 2020 to 2022 has also been applied to data for 2018 and 2019. This will apply a value where it was previously reported as £0.
- Usual business validation processes may have corrected reported gear type or fishing area, adjusting data for a specific gear type or fishing area without influencing the total quantity or value of landings.

More details on the methodologies and adjustments applied, please see the methodology and quality section of this report.

Summary of the impact of the amendments

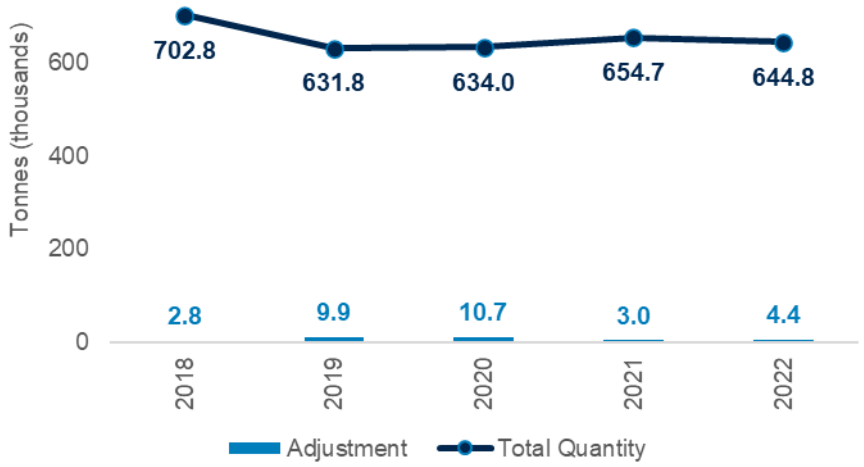
Total quantity of landings (live weight) by UK vessels.

Use of United Kingdom (UK) vessels refers to all vessels registered by England, Scotland, Northern Ireland, Wales and the Crown Dependencies (Isle of Man, Jersey and Guernsey)

Total landings refers to all landings by UK vessels into all UK and non-UK ports.

Quantity of landings refers to the weight of sea fish (in tonnes) landed into port by each vessel. It is reported as live weight, that is the whole weight equivalent of the landing. In reality, the sea fish landed may be in a different presentation state, such as headed, gutted or filleted. Landing weight is reported in tonnes.

Figure 1 – Total quantity of landings (live weight), including adjustment, 2018 to 2022, 000's tonnes



The total quantity of landings by UK vessels, as measured by live weight, has been adjusted upwards across the five-year period from 2018 to 2022.

The average adjustment was up 1.0% in each year between 2018 and 2022. Annual adjustments range from 0.4% (up 2,812 tonnes) in 2018 and 1.7% (up 10,712 tonnes) in 2020.

The total adjustment over this period was around 30,855 tonnes. The largest upwards adjustment for a single year was for 2020, at 10,712 tonnes. This represents an upwards adjustment of 1.7% on previously reported total landings by UK vessels in 2020. Much of this adjustment in 2020 was because of increased reporting of Mackerel landings, which accounted for 64% of the total increase.

Table 1 – Total quantity of landings (live weight) by UK vessels, including adjustment, 2018 to 2022

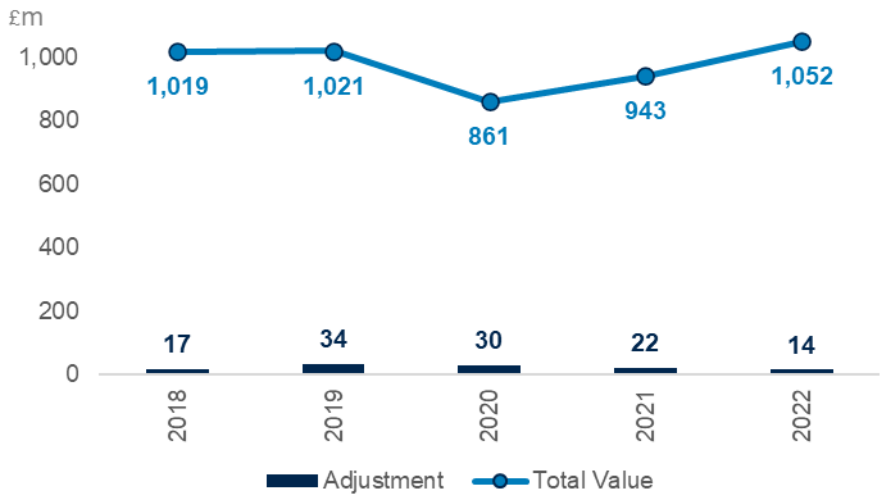
	2018	2019	2020	2021	2022
Live Weight (tonnes)	702,802	631,808	633,958	654,651	644,797
Change (tonnes)	2,812	9,922	10,712	2,973	4,437
Change (percentage)	0.4%	1.6%	1.7%	0.5%	0.7%

Total value of landings by UK Vessels

The value of a landing of sea fish is estimated using the value reported at the first point of sale of the sea fish. Where this reported value is not available, or not reliable, an estimation methodology is applied to present the most accurate value possible. More information about value is estimated can be found in the methodology and quality section.

Value is presented in Sterling. Where sales are made in a different currency, a conversion to Sterling is applied. This can be done before the value is entered into the fisheries database, where the exchange rate used is not known. Sales that are entered into the fisheries database in a currency other than Sterling, an average exchange rate for that year has been applied to convert the value to Sterling.

Figure 2 – Total value of landings, including adjustment, 2018 to 2022, £ millions



Value has also been adjusted upwards across the five-year period from 2018 to 2022.

The total increase over this period was £117 million, with the largest increase occurring in 2019 at £34 million, which represented a proportional adjustment of 3.5% on the total value landed in 2019.

The largest proportional increase in value landed was in 2020 which has been adjusted by 3.6% (up £30 million) on the total value previously reported in 2020. The majority of this adjustment was because of increased reporting of Mackerel landings, which accounted for 39% of the total adjustment in value landed.

Table 2 – Total value of landings by UK vessels, including adjustment, 2018 to 2022

	2018	2019	2020	2021	2022
Value (£m)	1,019	1,021	861	943	1,052
Change (£m)	16.7	34.2	30.1	22.2	14.2
Change (percentage)	1.7%	3.5%	3.6%	2.4%	1.4%

Landings by UK vessels into UK and Non-UK ports

The upwards adjustment for quantity landed by UK vessels into UK and non-UK ports is generally small (up by less than 1%). The exception is the upwards adjustment for UK vessels landing into non-UK ports in 2019 and 2020 (up 3.2%, or 7,306 tonnes, and 3.8%, or 9,250 tonnes, respectively).

These larger adjustments are because of the additional reported Mackerel landings by Scottish Vessels. This is expected, as the issue that led to manual amendments specifically affected landings into non-UK ports.

This mirrors results for UK vessels as a group.

Table 3 – Quantity of landings by UK vessels into UK and non-UK ports, including adjustment, 2018 to 2022

		2018	2019	2020	2021	2022
UK ports	Quantity	429,683	393,750	380,262	395,114	398,192
	Adjustment (t)	1,066	2,578	1,462	914	2,349
	Adjustment (%)	0.2%	0.7%	0.4%	0.2%	0.6%
Non-UK ports	Quantity	273,116	238,019	253,685	259,534	246,605
	Adjustment (t)	1,743	7,306	9,250	2,059	2,095
	Adjustment (%)	0.6%	3.2%	3.8%	0.8%	0.9%

Excludes vessels where port of landing is unknown

Similarly, the adjustment to the value of landings by UK vessels into UK ports is small, with an average upwards adjustment of £6.7 million each year.

The adjustment to the value of landings by UK vessels into non-UK ports is a combination of many of the corrections and changes made to the data.

Table 4 – Value of landings by UK vessels into UK and non-UK ports, including adjustment, 2018 to 2022

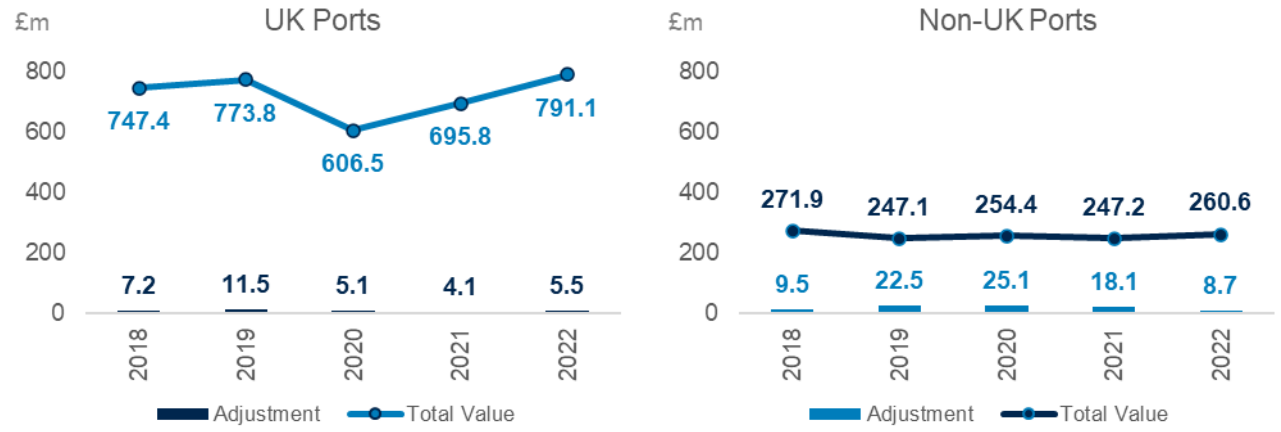
		2018	2019	2020	2021	2022
UK ports	Value	747.4	773.8	606.5	695.8	791.1
	Adjustment (£m)	7.2	11.5	5.1	4.1	5.5
	Adjustment (%)	1.0%	1.5%	0.8%	0.6%	0.7%
Non-UK ports	Value	271.9	247.1	254.4	247.2	260.6
	Adjustment (£m)	9.5	22.5	25.1	18.1	8.7
	Adjustment (%)	3.6%	10.0%	10.9%	7.9%	3.5%

Excludes vessels where port of landing is unknown

Again, the impact of the adjustments for additional reported Mackerel landings can be seen, with larger upwards adjustments in 2019 and 2020 for the value of landings by UK vessels into non-UK ports.

While the updates to exchange rates will not have affected every recorded sale from landings into non-UK ports, the change in the adjustment each year mirroring changes in average exchange rate over the same period.

Figure 3 – Total value of landings by UK vessels into UK and non-UK ports, including adjustment, 2018 to 2022, £m



Even though the value of landings by UK vessels into UK ports is higher overall, it is the adjustments made to the value of landings of UK vessels into non-UK ports that accounts for the majority of the overall adjustment in each year.

Landings by UK vessels by species

Sea fish species landed are categorised using unique species codes. There are three main categories: demersal (those that inhabit the bottom of the ocean), pelagic (those that inhabit the water column) and shellfish.

Further definitions can be found in the Sea Fisheries Statistics publication[5].

Table 5 – Total quantity landed (live weight) by UK vessels by species, including adjustment, tonnes, 2018 to 2022

		2018	2019	2020	2021	2022
Demersal	Total	176,358	164,232	148,347	129,030	135,403
	Change (t)	-40	100	706	388	721
	Change (%)	0.0%	0.1%	0.5%	0.3%	0.5%
Pelagic	Total	387,076	318,506	361,472	394,166	386,970
	Change (t)	1,790	7,554	6,946	1,963	2,401
	Change (%)	0.5%	2.4%	2.0%	0.5%	0.6%
Shellfish	Total	139,367	149,070	124,139	131,455	122,424
	Change (t)	1,062	2,268	3,060	622	1,314
	Change (%)	0.8%	1.5%	2.5%	0.5%	1.1%

The species group with the largest upwards adjustment to the recorded quantity of landings by UK vessels for the years 2018 to 2022 combined was pelagic species. The upwards adjustment was 20,654 tonnes in total, or an average of 4,131 tonnes in each year.

[5] https://www.gov.uk/government/statistics/uk-sea-fisheries-annual-statistics-report-2022/section-2-landings

The value of demersal species landed by UK vessels was adjusted upwards by 1,875 tonnes in total over the same period, whereas the value of shellfish landings was adjusted upwards by 8,327 tonnes.

Table 6 – Top five largest upwards adjustments to quantity landed by species for 2018 to 2022 combined, tonnes

	Mackerel	Herring	Patagonian Squid	Edible Crab	Whelks
Total (t)	1,002,085	436,737	10,877	140,016	97,016
Change (t)	17,316	2,898	2,482	1,112	939
Change (%)	1.8%	0.7%	29.6%	0.8%	1.0%

The combined upwards adjustment to the quantity of landings by UK vessels for all years between 2018 and 2022 was largest for recorded landings of Mackerel. The total upwards adjustment is over one million tonnes. However, as the quantity of landings of Mackerel is usually high, this is an upwards adjustment of only 1.8%.

In comparison, additional records of landings of Patagonian Squid have led to an upwards adjustment of 2,482 tonnes, which is equivalent to 29.6%. While still important to note the overall impact, this is a smaller change in a relatively small number, which leads to a larger percentage change.

The adjustment to the recorded quantity of landings by UK vessels of Mackerel was the largest in each year 2018 to 2021, and for 2022, the largest adjustment made to recorded landings of Herring. Otherwise, the impact of upwards adjustments to the recorded quantity of landings by UK vessels affects different species in each year. The species with an adjustment ranked in the largest five for each year varies, and includes adjustments to the landing quantity of Cockles, Edible Crab, Herring, Nephrops, Patagonian Squid, Scallops and Whelks.

Table 7 – Total value of landings by UK vessels by species, including adjustment, £m, 2018 to 2022

		2018	2019	2020	2021	2022
Demersal	Total (£m)	360.6	359.5	293.6	280.6	337.1
	Change (£m)	5.5	12.7	6.6	5.3	4.2
	Change (%)	1.5%	3.7%	2.3%	1.9%	1.3%
Pelagic	Total (£m)	276.3	256.8	296.8	328.3	333.2
	Change (£m)	3.6	9.6	15.0	13.8	5.8
	Change (%)	1.3%	3.9%	5.3%	4.4%	1.8%
Shellfish	Total (£m)	382.5	404.7	270.5	334.1	381.4
	Change (£m)	7.7	11.8	8.5	3.0	4.2
	Change (%)	2.0%	3.0%	3.2%	0.9%	1.1%

The species group with the largest upwards adjustment to the recorded value of landings by UK vessels for the years 2018 to 2022 combined was pelagic species. The upwards adjustment was £47.8 million in total, or an average of £9.6 million in each year.

The value of demersal species landed by UK vessels was adjusted upwards by £34.2 million in total over the same period, whereas the value of shellfish landings was adjusted upwards by £35.3 million.

Table 8 – Top five largest upwards adjustments to value by species for 2018 to 2022 combined, £m, tonnes

	Mackerel	Monks or Anglers	Herring	Shortfin Squid	Patagonian squid
Total (£m)	1,119.2	288.1	246.2	6.1	25.3
Change (£m)	36.9	9.5	8.1	5.3	4.4
Change (%)	3.4%	3.4%	3.4%	664.8%	21.3%

The combined upwards adjustment to the value of landings by UK vessels for all years between 2018 and 2022 was largest for recorded landings of Mackerel. The total upwards adjustment was £1,191 million. However, as the aggregate value of landings is usually high, this is an upwards adjustment of only 3.4%.

In comparison, adjustments to the value of landings of Shortfin Squid have led to an upwards adjustment of just £5.3 million. This equates to a very large percentage change, given the relatively small values considered and that previously there was a very small value reported.

The adjustment to the recorded value of landings by UK vessels of Mackerel was the largest in each year 2018 to 2022. Otherwise, the impact of upwards adjustments to the recorded value of landings by UK vessels affects different species in each year. The species with an adjustment ranked in the largest five for each year varies and includes adjustments to the landing quantity of Edible Crab, Hake, Herring, Monks and Anglers, Patagonian Squid, Plaice, Scallops, Sole, Squid and Whelks.

Table 9 – Top five largest downwards adjustments to value by species for 2018 to 2022 combined, £m, tonnes

	Blue Whiting	Blue Shark	Lemon Sole	Shrimps - Pink	Goldsinny-wrasse
Total (£m)	72.4	0.6	33.4	5.5	4.0
Change (£m)	-2.5	-0.7	-0.5	-0.1	0.0
Change (%)	-3.4%	-52.2%	-1.5%	-2.4%	-1.1%

Downwards adjustments to the value of landings by UK vessels are small in comparison to those upwards adjustments.

The largest downwards adjustment was to the value of landings of Blue Whiting. This is a result of the correction to an erroneously high value recorded in 2022, which in turn influenced average values applied to other landings of Blue Whiting in that year.

Adjustments to landings by UK vessels by category

For the remainder of this report, commentary will focus on adjustments to specific groups or categorisations, rather than overall adjustments.

Vessel nationality

The vessel nationality relates to the Fishing Authority with which a vessel is registered and administered. Although vessel itself may be located at a port elsewhere in the UK, these data show the breakdown by the registered nationality.

'Islands' refers to those vessels registered to one of the Crown Dependencies, that is Jersey, Guernsey and the Isle of Man.

Figure 10 – Total quantity landed (live weight) by UK vessels by nationality, including adjustment, 2018 to 2022

		2018	2019	2020	2021	2022
England	Total (t)	187,509.2	181,715.6	177,456.8	161,960.5	158,987.6
	Change (t)	428.6	1,777.6	1,228.7	659.0	1,947.6
	Change (%)	0.2%	1.0%	0.7%	0.4%	1.2%
Scotland	Total (t)	447,369.9	393,247.6	398,861.0	437,402.8	429,372.8
	Change (t)	2,209.2	7,248.2	7,246.3	2,116.8	-98.3
	Change (%)	0.5%	1.9%	1.9%	0.5%	0.0%
Northern Ireland	Total (t)	52,084.4	43,448.8	44,860.8	46,121.7	46,855.9
	Change (t)	120.0	163.0	118.6	79.2	2,398.3
	Change (%)	0.2%	0.4%	0.3%	0.2%	5.4%
Wales	Total (t)	11,092.4	9,124.6	8,860.4	5,107.8	5,479.8
	Change (t)	23.1	704.7	2,093.7	109.5	108.4
	Change (%)	0.2%	8.4%	30.9%	2.2%	2.0%
Islands	Total (t)	4,745.6	4,271.6	3,918.7	4,058.1	4,101.3
	Change (t)	30.8	28.9	24.9	8.2	80.6
	Change (%)	0.7%	0.7%	0.6%	0.2%	2.0%

Excludes vessels of unknown nationality

As expected, vessels registered in England and Scotland account for the largest adjustments in tonnage terms. Together vessels registered to England and Scotland account for the majority of the fleet. In 2022, these nations accounted for 85% of the total number of vessels in the fleet, and 85% of the number of over 10m vessels in the fleet.

Landing quantity by English vessels accounted for an upwards adjustment of 6,042 tonnes for 2018 to 2022 combined, while Scottish vessels accounted for a change of over triple with an upwards adjustment of 18,722 tonnes in total. Much of this is the manual amendments leading to additional reported records for 2019 and 2020. The largest adjustment in a single year was for 2019 (up by 7,248 tonnes).

For 2022, the adjustment for quantity landed by Scottish vessels is downwards by 98 tonnes. A downwards adjustment for quantity of Haddock and Hake account for 79% of this, which is a result of changes to the previously supplied manual amendments, with those records now being represented in the underlying database.

The largest relative adjustment was for Welsh vessels in 2020, with a change of over 2,094 tonnes, or an upwards adjustment of 31% for the year.

Table 11 – Value of landings by UK vessels by vessel nationality, including adjustment, 2018 to 2022

		2018	2019	2020	2021	2022
England	Total (£m)	337.6	341.6	290.3	295.0	323.9
	Change (£m)	7.5	13.0	13.4	10.2	12.1
	Change (%)	2.3%	4.0%	4.8%	3.6%	3.9%
Scotland	Total (£m)	585.2	593.0	501.1	572.4	643.2
	Change (£m)	7.2	18.9	11.4	7.8	-0.9
	Change (%)	1.2%	3.3%	2.3%	1.4%	-0.1%
Northern Ireland	Total (£m)	58.9	58.3	45.3	56.0	64.5
	Change (£m)	0.6	0.9	0.6	3.5	2.3
	Change (%)	1.1%	1.6%	1.2%	6.7%	3.7%
Wales	Total (£m)	27.4	19.8	18.0	12.1	11.8
	Change (£m)	0.9	0.9	4.8	0.6	0.4
	Change (%)	3.5%	5.0%	35.9%	5.4%	3.7%
Islands	Total (£m)	10.2	8.3	6.1	7.5	8.3
	Change (£m)	0.4	0.4	0.1	0.0	0.2
	Change (%)	4.6%	4.4%	1.1%	0.4%	2.1%

Excludes vessels of unknown nationality

Adjustments to value mirror those for quantity landed. Adjustments to landings of English vessels accounted for the largest change in value from 2018 to 2022, with an upwards adjustment of £56.2 million in total across 2018 to 2022. The largest upwards adjustment for a single year is for the value of landings by Scottish vessels in 2019, with a change of £18.9 million.

Similar to the relative adjustments for landing quantity, the largest relative adjustment to landing value in a single year was for Welsh vessels, with an upwards adjustment of 35.9% for 2020.

Vessel length

Over 24m vessels accounted for the largest net adjustment in in each year between 2018 and 2022, for both quantity landed and value. These adjustments accounted for total net adjustments for all years combined of 24,111 tonnes and £58.8 million respectively. This represents 78% of the net total increase in tonnage from 2018 to 2022 and 50% of the adjustment in value landed.

Given these larger vessels account for the large majority of the quantity of landings by UK vessels, small relative adjustments will equate to larger absolute adjustments overall. It is also worth noting there have been adjustments to data related to smaller vessels, those under 10m, where adjustments have been made to records for a much greater number of vessels.

Table 12 - Change in quantity landed (live weight) by vessel length, tonnes, 2018 to 2022

	2018	2019	2020	2021	2022
Under 10 meters	406.7	637.6	269.7	353.4	755.1
10-12 meters	40.0	110.2	191.1	108.1	133.5
12-15 meters	345.9	477.7	430.6	233.4	555.3
15-24 meters	363.6	558.3	425.3	-1.6	402.1
Over 24 meters	1,655.5	8,138.4	9,395.4	2,279.5	2,642.0
Unknown	0.0	0.0	0.0	0.0	-0.1

Table 13 - Change in value by vessel length, £m, 2018 to 2022

	2018	2019	2020	2021	2022
Under 10 meters	1.4	2.1	1.2	1.5	2.8
10-12 meters	0.3	0.5	0.5	0.3	0.2
12-15 meters	1.3	0.3	0.9	0.5	1.0
15-24 meters	2.8	4.6	1.3	0.7	1.2
Over 24 meters	4.2	13.2	19.7	14.7	7.1
Unknown	0.0	0.0	0.0	0.0	-0.3

Fishing gear

Different types of fishing gear are used to catch different species of fish. A single vessel can use several gears, or individual vessels may be more specialised. Gears can be grouped several ways. One grouping is active versus passive. Active gears follow the target fish while target fish come to passive gears which remain in one place.

Further information about the different gear types can be found in the Sea Fisheries Statistics[6].

It is important to highlight that some adjustments within gear categories are net changes. There are equivalent upward and downward adjustments throughout due to the reapportioning of gear type within the data.

For example, there were previously reported landings of Mackerel into Norway in 2022 (3.5 thousand tonnes) that had previously been assigned to the unknown gear category these have now been reapportioned to pelagic trawls. Therefore, this would count as a decrease to the net adjustment for unknown gear and an increase to the adjustment for pelagic trawls but there was no change to the total reported landings overall.

[6] https://www.gov.uk/government/statistics/uk-sea-fisheries-annual-statistics-report-2022/section-2-landings#fishing-gear

Table 14 - Change in quantity landed (live weight) by gear category, tonnes, 2018 to 2022

	2018	2019	2020	2021	2022
Beam trawl	13.8	134.9	288.1	68.1	186.7
Demersal seine	-53.9	-83.2	142.3	11.6	119.6
Demersal trawls	-16,221.2	-12,253.8	690.6	-436.0	546.3
Dredge	430.8	756.7	327.3	325.4	408.8
Drift and fixed nets	1.4	80.0	162.3	44.4	104.4
Handlines	-20.8	41.6	-9.2	21.5	36.4
Longlines	-16.5	41.5	18.7	2.2	15.4
Other mobile gears	11.8	118.0	5.8	0.0	9.2
Other passive gears	1.2	4.2	3.0	12.3	-2.4
Pelagic seine	15.3	14.6	47.3	8.7	177.6
Pelagic trawls	18,131.7	20,544.6	8,556.3	2,690.0	12,950.5
Pots and traps	469.7	460.9	450.2	197.0	620.9
Unknown	48.4	62.2	29.6	27.5	-10,736.9

In each of the five years between 2018 and 2022, the largest net adjustment, in both quantity and value of landings, was to pelagic trawls. The total upwards adjustment in quantity landed (live weight) over this period was 62,873 tonnes, which corresponds to a total net adjustment upwards in value over this period of £82 million.

Table 15 - Change in value by gear category, £m, 2018 to 2022

	2018	2019	2020	2021	2022
Beam trawl	1.0	2.3	1.5	0.8	1.5
Demersal seine	1.8	1.6	0.8	0.9	0.9
Demersal trawls	-6.9	1.5	7.4	4.0	3.0
Dredge	1.4	1.4	0.8	0.8	0.1
Drift and fixed nets	0.9	3.8	0.7	0.4	0.7
Handlines	0.0	0.1	0.0	0.0	0.2
Longlines	2.0	0.9	1.0	0.3	0.2
Other mobile gears	0.0	0.1	0.0	0.0	0.0
Other passive gears	0.0	0.0	0.0	0.1	-0.2
Pelagic seine	0.0	0.0	0.0	0.0	0.1
Pelagic trawls	14.0	19.3	16.1	14.3	18.5
Pots and traps	2.3	2.8	1.6	0.4	2.1
Unknown	0.1	0.2	0.2	0.2	-12.9

Area of capture

The Food and Agriculture Organization (FAO) divides the sea into major fishing areas, sub areas and division for statistical reporting purposes, facilitating international comparison of data and collaboration between organisations. Further information can be found on the FAO website[7].

FAO sub areas and divisions are used in the Sea Fisheries Statistics to indicate where fishing activity is taking place. The analysis shown here only includes FAO sub areas with larger adjustments. Data for the remaining sub areas can be found in the accompanying dataset.

While some of the adjustments made to area of capture will be a result of additional records, such as those including via manual amendments for Scottish vessels, the reprocessing existing records in the database will have potentially captured new or corrected area information. This means that some of the adjustment shown are from reapportioning quantity and value of landings across FAO divisions, rather than affecting the overall total.

Table 16 – Change in quantity landed (live weight) by selected FAO divisions, tonnes, 2018 to 2022

		2018	2019	2020	2021	2022
27.4	*North Sea*					
27.4.a	Northern North Sea	1,766.8	1,259.3	1,828.0	1,526.0	1,910.3
27.4.b	Central North Sea	244.0	416.1	422.6	338.3	362.0
27.4.c	Southern North Sea	264.3	453.7	255.9	75.7	293.2
27.6	*Rockall, Northwest Coast of Scotland and North Ireland*					
27.6.a	West of Scotland	116.1	6,082.1	5,237.4	503.3	139.7
26.6.b	Rockall	2.9	-3.5	15.4	0.0	0.0
27.7	*Irish Sea, West of Ireland, Porcupine Bank and Western English Channel*					
27.7.a	Irish Sea	239.9	373.6	198.1	189.6	583.1
27.7.b	West of Ireland	-7.1	298.4	20.5	8.3	0.0
27.7.c	Porcupine Bank	0.0	51.8	23.0	6.3	4.9
27.7.d	Eastern English Channel	49.3	76.4	215.1	59.4	198.3
27.7.e	Western English Channel	88.8	277.1	318.5	127.1	590.6
27.7.f	Bristol Channel	44.4	117.3	76.4	70.9	239.2
27.7.g	Celtic Sea North	14.1	38.9	3.2	34.5	84.9
27.7.h	Celtic Sea South	1.4	8.0	18.0	6.6	19.3
27.7.j	Southwest of Ireland - East	-14.0	-142.6	53.9	5.1	5.8
27.7.k	Southwest of Ireland - West	0.0	7.3	8.0	0.0	5.4

The largest upwards adjustments are related to fishing activity by UK vessels in the Northwest Coast of Scotland and North Ireland or as the West of Scotland (noted as West of Scotland in the table) in 2019 and 2020. These upwards adjustments of 6,082 tonnes and £7.9 million in 2019 and 5,237 tonnes and £7.8 million in 2020, can be attributed to the additional records included for Scottish vessels.

Beyond this, the largest adjustments are to reported fishing activity by UK vessels in the Northern North Sea. There has been an upwards adjustment by an average of 1,658 tonnes in each year between 2018 and 2022, and an average upwards adjustment of £5.5 million a year.

[7] https://www.fao.org/cwp-on-fishery-statistics/handbook/general-concepts/main-water-areas/en/

Table 17 – Change in value by selected FAO divisions, £m, 2018 to 2022

			2018	2019	2020	2021	2022
27.4	*North Sea*						
	27.4.a	Northern North Sea	4.5	4.2	5.8	7.6	5.3
	27.4.b	Central North Sea	2.3	5.2	2.1	2.2	1.6
	27.4.c	Southern North Sea	0.3	1.1	1.0	0.5	2.2
27.6	*Rockall, Northwest Coast of Scotland and North Ireland*						
	27.6.a	West of Scotland	1.2	7.9	7.8	4.8	-1.7
	26.6.b	Rockall	0.3	2.1	0.1	0.0	0.0
27.7	*Irish Sea, West of Ireland, Porcupine Bank and Western English Channel*						
	27.7.a	Irish Sea	0.8	0.9	0.3	0.3	0.8
	27.7.b	West of Ireland	-0.1	0.9	0.9	0.8	0.7
	27.7.c	Porcupine Bank	0.2	0.8	0.8	1.0	0.3
	27.7.d	Eastern English Channel	1.9	1.1	1.9	1.5	1.4
	27.7.e	Western English Channel	0.9	1.0	0.8	0.6	1.4
	27.7.f	Bristol Channel	0.2	0.2	0.2	0.2	0.7
	27.7.g	Celtic Sea North	0.2	0.6	0.1	0.1	0.5
	27.7.h	Celtic Sea South	0.4	0.6	0.1	0.3	0.1
	27.7.j	Southwest of Ireland - East	1.1	4.3	3.1	1.9	0.6
	27.7.k	Southwest of Ireland - West	0.1	1.2	0.2	0.2	0.1

Methodology & Quality

This section provides further explanation of changes that affect the published landings figures. It categorises and details the root causes of the changes described in previous sections and, where possible, quantifies how important each of those changes are ultimately to the published figures using demonstrative examples. All newly implemented processing steps are documented here as well as any steps that have, for various reasons explained below, ultimately caused changes to figures.

Please note the corrections affect 2018 to 2022 landings data only. Prior years are unaffected.

Reprocessing historic data

In short, without any other changes, reprocessing previous years of data will cause slight differences in figures due to having to extract a new 'snapshot' from a live database.

Annual snapshots

Each year 'snapshot' extracts of landings data from the UK reporting database (named 'ifish2') are taken. These snapshots, taken during summer for the preceding year (i.e. 2022 data extracted in summer 2023), are made to provide a static, single point of truth view of UK landings. They are extracted on a six-month lag to allow time for any data lags caused by late submissions or standard business process amendments. This lag also allows time for a data quality exercise to be completed. However, crucially the UK reporting database is a live reporting database meaning amends can be applied post publication. The lag we currently use for publishing data is sufficient mitigate any meaningful impact in the vast majority of cases.

Reprocessing historic data

By necessity this corrections exercise required re-extracting the ifish2 database snapshots for 2018 to 2022. As such it includes any changes made to the data on the UK system after snapshots were taken originally. For example, if a change was made to data on the UK system to 2018 landings data in December 2019 this would not be captured in the Sea Fisheries Statistics 2018 publication as the snapshot would have been taken during summer 2019 prior to that change. Generally, these types of changes are minor often affecting the price applied to a small sample of data, however, a clear exception detected during this reprocessing exercise was the addition of 1,897 tonnes of Patagonian squid landings from Falklands Islands waters landed in 2020 which previously was absent from our published 2020 data due to not being processed fully until April 2022 (151% increase to UK Patagonian squid landings in 2020 accounting 0.3% of UK landings in 2020). Investigation reveals this was due to exceptional circumstances. There were other changes due to the reprocessing of historic data, such as adjustments to prices used for Scottish landings of Ballan Wrasse, but these were minor changes. There were also miscellaneous changes detected such as changes in logbooks to the reported gear used for example that won't change overall weight or value figures but will change figures when assessing landings by gear group.

Landings data flow fix

The primary issue detected which prompted this report was a discovery that a subset of reported data was not being processed correctly through to the UK reporting database (which is used as the primary source for published landings data). MMO has worked with the UK Fisheries Authorities to resolve these issues.

These issues were detected following an ad hoc review and investigation into UK database architecture and how the automated processes were handling logbooks and sales note data submitted by fishers and buyers/sellers. The data flow issues affected a minority of submitted data and there was no single cause for failure in processing certain cases but rather a collection of more minor issues that culminated into a

meaningful underreport in some contexts. The data flows were generally caused by or exacerbated by submissions with poor data quality that the system was failing to account for.

Specific issues that were identified and resolved through a remediation work stream and ad hoc corrections included logbooks that had failed designated business rules for completeness including those with no return to port information, various issues affecting the transfer of submitted data between databases when an error in submission was detected, error with the automated process used to apply average prices and failure to process and apportion landing declaration tonnage across the reported logbook activity correctly across multiple trips when data was not submitted in the expected order.

Impact of the changes

The changes due to data flow fixes have an overlapping impact with other described changes so are difficult to fully isolate where multiple fixes have been applied to individual cases to correct. The combined changes are described in previous sections but an example of one of the largest changes that can be isolated as specifically fixed by this database remediation work was the addition of 1,788 tonnes of Herring landed into the port of Floro in Norway in 2022 and caught in ICES rectangle 47E7 (located in Area 27.4.a, Northern North Sea) which was processed in July 2024 following fixes to the underlying mechanisms previously preventing it from being processed. This addition alone accounted for a +1.8% to UK Herring live weight landings in 2022 and represents 0.3% of total UK landings by live weight in 2022.

Historic exchange rates fix

Due to the detected issue with data flows other aspects of the UK database and automated processing algorithm were assessed during an ad hoc data quality review leading to the conclusion that the system had been applying outdated exchange rates for landings sold in a foreign currency.

Amending the exchange rates

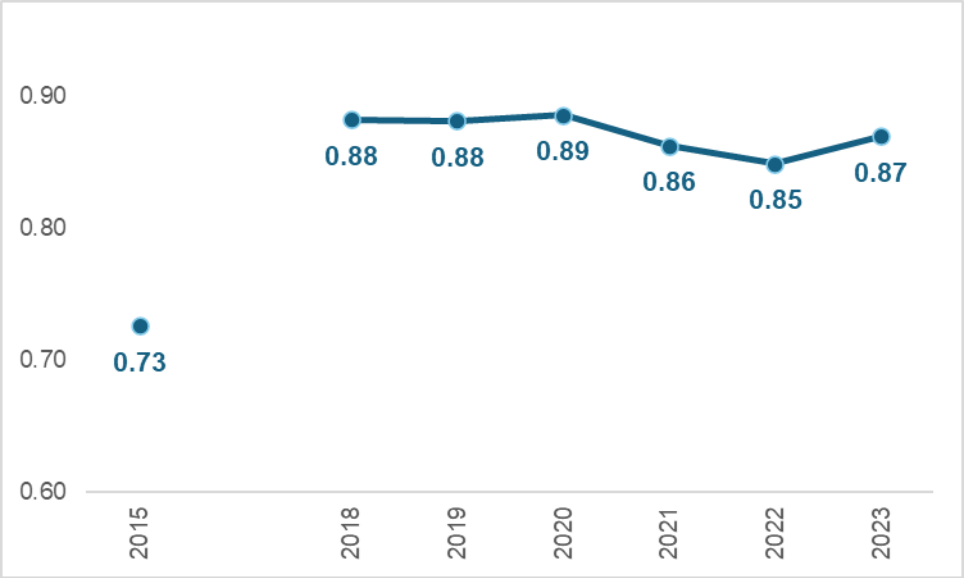
The underlying system that was being used to process received sales note data and convert sales note prices for sales in a foreign currency into GBP was previously applying static exchange rates set at 0.72584 for Euros, 0.1028 for Danish Krone and 0.085 for Norwegian Krone. These were reflective of the exchange rates of 2015, 2016 and 2022 respectively.

The fix required annual exchange rates being sourced for each year 2018 to 2022 (https://www.trade-tariff.service.gov.uk/exchange_rates/average) and then all relevant sales notes and associated logbooks for sales in foreign currency being reprocessed converting the sale price now using corrected exchange rates.

The exchange rate that was previously being used for Euros to GBP was a particular problem due to the 2015 exchange rate being far below more recent years. This caused a consistent undervaluing of UK landings abroad across the five-year time series which has now been fixed.

To provide a simple explanatory example; if a UK vessel's fish was sold in a Dutch port in 2022 for 100,000 Euros previously that sale would have been converted to £73,000 (using 0.73 conversion factor). Now, using the updated annual exchange rate it would be converted to £85,000 causing a direct increase of £12,000 (or 16.4%). Due to the average prices mechanism implemented the real terms change to value in the database is often more complex than that example, but this fix has contributed to an overall increase in landings value in the database and the published data.

Average annual exchange rate for Euros to GBP in each year. Source HM Revenue & Customs



Quantifying the change

Due to the nature of this issue it only directly impacts: (1) UK landings into foreign ports when sold in a foreign currency such a Euros or Danish Krone (2) small proportion of landings into UK ports when sold in a foreign currency. UK landings abroad accounted for 39% of total UK landings by live weight over the five-year period with the vast majority of that (92%) by large over 40 metre vessels. This was primarily for pelagic species such as Mackerel, Herring and Blue Whiting. The picture is very similar when viewed by value.

The table below shows the top 15 species (presented in £ million) landed by UK vessels into non-UK ports during the five-year period. These are the landings that were most impacted by the change to currency conversion factors, however, these landings were also subject to other corrections making it difficult to isolate the change due to conversion factors. For example, UK Mackerel value has increased by +2% overall in 2022 compared to figures published in the Sea Fisheries Statistics 2022 report last year but there are multiple factors contributing to that change with currency conversion fix being one of them.

Species Name	2018	2019	2020	2021	2022	Total	Avg. 18-22	% of Total
Mackerel	120	114	136	150	142	661	132	52%
Herring	27	23	27	25	34	137	27	11%
Blue Whiting	12	10	13	14	8	56	11	4%
Monks or Anglers	12	12	10	11	11	56	11	4%
Crabs (C.P.Mixed Sexes)	11	11	8	10	10	51	10	4%
Cod	19	15	12	3	2	51	10	4%
Plaice	15	11	5	4	9	44	9	3%
Horse Mackerel	4	6	6	6	4	25	5	2%
Patagonian squid	11	7	7	0	0	25	5	2%
Megrim	5	4	5	5	4	23	5	2%
Nephrops (Norway Lobster)	4	4	3	4	5	20	4	2%
Squid	2	2	1	2	10	16	3	1%
Hake	3	3	2	2	2	11	2	1%
Sole	3	2	2	1	2	11	2	1%
Saithe	2	2	2	2	2	10	2	1%
Other species	21	21	16	10	14	82	16	6%
Total	272	247	254	247	261	1,281	256	100%

The overall change is difficult to quantify accurately due to an inability to assess it in isolation as the large volume of reprocessing required to action this correction required reapportionment of historic activity data using current business rules (rather than historic) and recalculation of average prices incorporating various fixes to sales note data whilst also removing previous manual fixes to value data and introducing further zero value records (due to lack of valid samples to construct average prices for some records or otherwise validation failures on latest business rules). Those introduced zero value landings records initially caused various decreases in total value within the database particularly for 2021 until the amendments applied through the Sea Fisheries Statistics average prices method reintroduced value data.

However, a specific example of a change initiated exclusively by this fix was 3,130 tonnes of Herring landed into the Netherlands in 2021 was reprocessed on 14/08/2024 using the most up to date sales note date available as well as an updated Euros to GBP conversion factor changing the allocated landings value from £2,275,435 to £2,680,649 (+£405,214). This is demonstrative of one of the largest changes for that year.

Note this change also had an indirect knock-on impact to value data for UK landings into UK ports for those landings that had not been assigned value on the UK reporting system. As described in sections below these are applied an annual species UK average price and this change to currency conversion has contributed to the average species prices used in this step increasing. For example, the average price figure for Mackerel in 2022 increased from £1.14 per kg to £1.16 per kg. Likewise, Anglerfish average prices for 2022 increased from £3.04 per kg to £3.2 per kg.

What is the impact of changing exchange rates?

Changing the exchange rate has led to an increase in the reported value of sales. This is as a result of applying an appropriate conversion rate to those sales reported in non-GBP only.

GBP has depreciated since 2015, from an average exchange rate in 2015 of was £1 = €1.38 to a low of £1 = €1.08 in 2017 and recovering to an average of £1 = €1.15 in 2023.

As GBP depreciates (becomes weaker), the purchasing power of the euro increases. This means the same value of euros can purchase a greater value in GBP in 2023 compared to 2015. It becomes relatively cheaper to purchase goods in £'s from the UK.

For example, if the unit price of fish was set at £1 per kilo, a buyer with €100 would have been able to purchase 73kg of fish in 2015, but 84kg of fish in 2023. Buyers are able to purchase more with the same Euro value.

Relevant to sales made in Euros, the inverse is the Euro has appreciated (become stronger) relative to the pound, €1 is worth more in GBP than it was. In 2015, the average exchange rate was €1 = £0.73 compared to €1 = £0.84 in 2023.

As an illustration, the unit price of fish is set at €1 per kilo, with a sale of 100kg costing €100. In 2015 this would be equivalent to £73, whereas in 2023 it was equivalent to £84.

Improved processing methodology

The annual Sea Fisheries Statistics data quality process runs from Spring through to late Summer each year amending data on the UK reporting database itself where possible ahead of extracting datasets ready to process for publication. However, there are inevitably certain cases that cannot be amended on the UK database itself so are instead accounted for in the annual Sea Fisheries Statistics landings processing methodology which applies changes to the snapshot extracts taken from the UK ifish2 reporting database rather than the database itself. Where possible changes applied to the snapshots for the purposes of the annual publication are replicated on the live reporting database through post-publication follow ups.

This section covers all key steps of this processing method where they impact a change to weight or value compared to our previously published landings dataset.

Note the changes described in prior sections caused various knock-on implications both in terms of changes to the input data as well as providing an opportunity to re-assess historic data and apply the latest amendment methodology to a full five-year time series bringing better alignment and comparability.

There are several types of fixes covered below but the two most impactful are: (1) applying average values to landings records that had zero values particularly for 2018 and 2019 landings where this was not originally applied when they were processed in 2019 and 2020 respectively (2) the addition of missing Scottish landings records which led to tonnage and value increases for a number of species, most notably large amounts of Mackerel.

Generally, the fixes to value data outlined below are to account for: (1) erroneous submitted sales note data requiring corrections (2) shortcomings of the current in-built database average prices method. Both are due for review in an extended data quality review period following this publication.

High prices fix

This step has been run for multiple publication cycles mostly unchanged and is in place to detect and correct landings where the reported sale price is substantially above the expected level (generally defined as >£50 per kilo where tonnage is at least 1 or value is at least £500). These are cases that have not been fixed on the UK reporting database itself so require a fix prior to publication; fixing certain cases on the database is sometimes not workable given constraints so this step is intended to 'clean' remaining issues and replace with sensible prices. Where high prices are detected, they are replaced by average annual prices for the relevant species within that landing port if available and if not then using national species prices. The only minor change that was made to the method during corrections was to exclude various Wrasse species (ENX, TBR, USB and YFM) from this step as they can have genuine high prices. It is also worth stating reprocessing of historic 2018 landings on the UK database reintroduced a previously fixed substantial extreme high value issue for Anglerfish (ANF) meaning this was picked up and resolved during this step rather than previously on the UK reporting database itself.

Zero value fixes

There are various zero value fixes applied to landings data outside of the main UK reporting database which are generally to account for the current shortcomings of the pre-existing 'Bigfish' average prices method for certain patterns of fishing activity (particularly vessels that land fish infrequently into foreign ports). All the fixes below result in an increase to landings value compared to what is present on the UK reporting database. As all steps have been applied previously to at least part of the time series during previous publications the changes of note here are only to years of the time series where fixes were not previously applied as had not been introduced then or to cases where changes to the input data caused by aforementioned remediation work has led to these steps applying slightly different average prices than previously to a different subset of the data despite no changes to the method logic being applied.

The list of applied zero value record fixes are as follows:

- **English Cod landings value fix** – during this step sales note derived prices are applied to certain trips targeting Cod in Norwegian and Svalbard waters where no value exists for them in the main reporting database. The method used here is the same as in previous publications, however, due to the reprocessing of relevant trip into non-UK ports and their associated sales data the way these prices have been implemented into the dataset is not a direct match to process used for SFS22 data; English Cod landings have had a minor (+1.1%) increase in landed value over the five year period (primarily impacting 2019 data)
- **Scottish Hering value fix (2022 only) –** this was a fix applied to certain Herring landings to apply correct sales information for those trips. It remains unchanged from SFS22.

- **Scottish landings in Denmark value fix (2022 only) –** this fix was applied to Scottish landings into Denmark (predominantly Blue Whiting) to populate with specific prices. It remains unchanged from SFS22.
- **Scottish vessel and port value fix (2019-22 only) –** where Scottish specific average prices were available (2019-22 only) these were used to apply prices to zero value records for Scottish vessels and non-Scottish vessels landing into Scottish ports. This approach differs from that applied to the landings data present in SFS22 as this step was only introduced last year for 2022 data. It has now been retrospectively applied across four years. For 2018 the below fix is applied instead using standard UK prices rather than Scottish specific prices.
- **UK above minimum size zero value fix** – this step applies annual average species price per kg to all remaining zero value records that have not been resolved by above fixes and are not Below Minimum Size (BMS) landings (those remain as zero value landings). This step has previously only been applied to 2020 data onwards but has now additionally been applied to 2018 and 2019 data. Moreover, for the 2020 data, previously prices were not applied to landings designated for non-human consumption (mainly frozen Blue Whiting) but this has now been implemented across all five years leading to a further rise in value for 2020.

Missing Scottish landings fix

During the Sea Fisheries Statistics 2021 report, 14,073 tonnes of Mackerel landings were appended to the 2021 data following joint working with Scottish government colleagues to account for missing Mackerel landings issues caused by UK systems not processing landings from certain fishing activity patterns.

For the Sea Fisheries Statistics 2022 report last year, 22,768 tonnes of landings were appended to the 2022 data (of which 17,727 tonnes were Mackerel) again to ensure full coverage of UK landings data despite the landings being unable to be processed onto the main UK reporting system.

As part of this corrections exercise, due to the remediation work, an updated version of the missing landings dataset was shared by Scottish Government colleagues in August 2024. The 2022 data to append was reduced slightly (by ~100 tonnes) but the 2021 data was increased by 2,352 tonnes (of which 1,903 tonnes of the increase were from Mackerel landings).

Moreover, additional landings for 2018-20 data were supplied and so have now also been appended to this corrections dataset for the first time contributing relatively significant increases to 2019 and 2020 Mackerel landings.

The table below summarises the total weight and value appended. Note most of those landings for 2021 and 2022 had been incorporated into the previous publications so the differences of note for this corrections release are ~2000 tonne increases for 2018 and 2021 and ~7000 tonne increases for 2019 and 2020 with very little change (<100 tonnes) to 2022.

Year	2018	2019	2020	2021	2022
Live weight (tonnes)	2,215	7,284	7,086	16,426	22,662
Landed value	£3,565,010	£10,166,357	£8,279,887	£19,663,423	£26,739,196

Mussel seed removal

As stated in previous Sea Fisheries Statistics methodologies[8] historically all mussel landings with zero landings value were removed from the landings dataset due to them being a report of Mussels being re-laid for aquaculture to harvest later rather than a landing. This is a process that has been applied to data since 2008.

[8] UK_Sea_Fisheries_Statistics_2022_101123___.pdf (publishing.service.gov.uk), p63

However, after ad hoc investigation, due to the way the current UK average price method is calculated (since 2018) this processing step can no longer accurately detect Mussel seed landings, so this step has been discontinued. The impact of this is minor with a slight increase in Mussel landings in the dataset (namely the addition of 272 tonnes in 2022, all other years are below 3 tonnes increases).

Miscellaneous corrections

There are various other miscellaneous standard amendments that have mostly simply been reapplied to the newly extracted data matching those actioned in last year's Sea Fisheries Statistics publication. These include minor appends of non-UK landings missing from the main UK ifish2 reporting database, erroneous sales note fixes for specific foreign port data in 2021, removal of minus weight/value records, zone of capture logbook misreport corrections, species code amendments for non-standard data, under10m vessel into non-UK port sales note misreporting fixes and ICES rectangle reporting fix for historic distant waters landings from Area 51 (Western Indian Ocean). These amendments have not impacted a change compared to last year's dataset having previously been applied.

However below is a very brief description of additional minor miscellaneous corrections that were newly applied for this report:

- 697 tonnes of French landings into Lochiver in Scotland replaced by corrected quantity of 64 tonnes
- Assigning certain vessels to the correct UK Fishing Authority when they are reported as flag 'GBR' (UK unspecified) in the reporting database. This happens when a vessel is in the process of changing fishing authority
- Assigning non-UK vessels into specific length groups (previously reported in 'Unknown' length group)

Using the accompanying dataset

Alongside this report we have published an updated five-year time series (2018-22) UK landings into all ports and non-UK landings into UK ports dataset including the above corrections. This dataset supersedes all previously published 2018-22 landings data (namely the landings data accompanying last year's annual report; UK sea fisheries annual statistics report 2022 - GOV.UK (www.gov.uk))

The landings spreadsheets are presented in the same format as previous years with the addition of three 'Change' fields next to the usual live weight tonnage, landed weight tonnage and landed value (£) fields. These 'Change' fields show how much that specific aggregated record has changed compared to the previous Sea Fisheries Statistics 2022 landings dataset. These fields have been provided so, if the relevant change of interest has not been covered explicitly in the report above, users can delve into further detail on all changes that have been made following these corrections. For example, this can be used to look at changes to data for specific ICES rectangles or landing ports.

Note where the weight and value fields are zero and the 'Change' fields are not this does not necessarily mean landings have been removed but could instead mean the landings have been reassigned to a different aggregated record due to a change in another element of the landing such as reported area or gear. For example, the record listed that may initially appear to be the single largest change is for 2018 Scottish Blue Whiting landings into the port of Skaagen, Denmark caught in FAO Division 27.7.c. The record for 'Gear Category' = Demersal trawls shows a 6,073 tonne decrease in landings, however, there is a second record where 'Gear Category' = Pelagic trawls showing a matching 6,073 tonne increase. Therefore, no landings have been 'lost' overall but historic landings of Blue Whiting have been reassigned from demersal to pelagic gear creating a change in the 2018 dataset.

Year	2018
Species Name	Blue Whiting

Species Name	Sum of Change Live Weight (tonnes)
Demersal trawls	-6,073
Pelagic trawls	6,073
Grand Total	**0**

As such it is advised to view your preferred variable/s in a summarised pivot table (or equivalent) to look at the overall summed change for that variable; for example, looking at 'Species Name' by summed 'Change Live Weight (tonnes)' in 2022 returns Herring as the largest addition to the dataset that year– a change instigated by logbook reprocessing and reapportioning of trips.

Year	2022

Species Name	Sum of Change Live Weight (tonnes)
Herring	2,174
Crabs (C.P.Mixed Sexes)	328
Whelks	230
Pilchards	191
Scallops	172

Below in a screenshot of the PivotTable field selections used to produce the PivotTable above.