Market Insight Factsheet

Farmed Seafood in Multiple Retail (2019)

This factsheet provides a summary of the performance of farmed seafood in the multiple retail seafood category up to June 2019

The past 40 years have seen a significant change in the type of seafood eaten in the UK. Since the 1970's, there has been a shift away from traditional wild caught white fish species including cod and haddock, towards farmed seafood species such as salmon and warm water prawns. More recently, the farmed 'white fish' species like basa, seabass and sea bream have become popular alternatives to traditional wild capture white fish species.

Farmed seafood is most strongly represented in the chilled sector, and continues to grow share; taking a 68% (+0.2pp) share by value and 57% (+1.6pp) share by volume of the top 5 species in the 52 wks. to June 2019.

It is estimated that farmed seafood currently makes up 55.4% by value, and 38.2% by volume of the UK top five bestselling seafood species in the total seafood category, and continues to grow share, up 18% over the past 10 years. In the 52 weeks to 15 June 2019, the share of farmed seafood in the UK top 5 was worth £1.4bn with 88,301 tonnes.

What is farmed seafood?

Aquaculture is the farming, rearing or cultivation of aquatic animals and plants for food. Aquaculture occurs both inland, for freshwater species and in coastal brackish / seawater for marine species. Typically marine fish are grown in net pens in the sea or estuaries whilst shellfish can be grown by "seeding" small shellfish on the sea-floor or by growing them on ropes, or in floating cages. A comprehensive overview of aquaculture standards, processes and key species can be found on Seafish Aquaculture Profiles – https://seafish.org/aquaculture-profiles/

Salmon Sea Pens

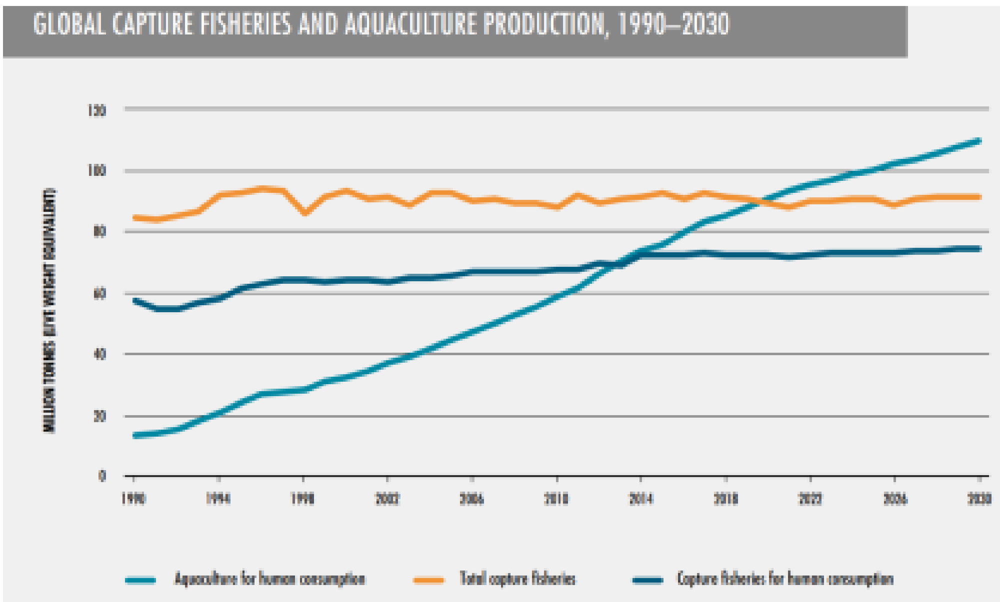
Farmed seafood - a global perspective

Farmed or aquacultured seafood plays an increasingly important role in feeding the world.

In October 2019, the Food and Agriculture Organisation of the United Nations (FAO) have available seafood supply data for human consumption for 2016 and global seafood supply data for 2017.

Global food supply from farmed seafood continues to grow, whilst supply from wild capture has remained relatively flat since the late 1980's. In 2016, farmed seafood made up the majority (52%) of seafood supply for human consumption at 80 million tonnes, compared to 73 million tonnes from wild capture fisheries. The FAO predict global farmed seafood supply for human consumption will hit 109 million tonnes, exceeding supply from wild caught by 47% in 2030.

- In 2017, global seafood aquaculture production (excluding aquatic plants) was 80.1 million tonnes (+ 4.9%). The total first sale of aquaculture production had an estimated value of £186bn.
- The top three aquaculture producers were China (46.8m tonnes), India (6.2m tonnes), and Indonesia (6.2m tonnes).
- Top aquacultured aquatic animals:
  - 67% finfish (53.4 m tonnes)
  - 22% molluscs (17.4 m tonnes)
  - 11% crustaceans (8.4 m tonnes)



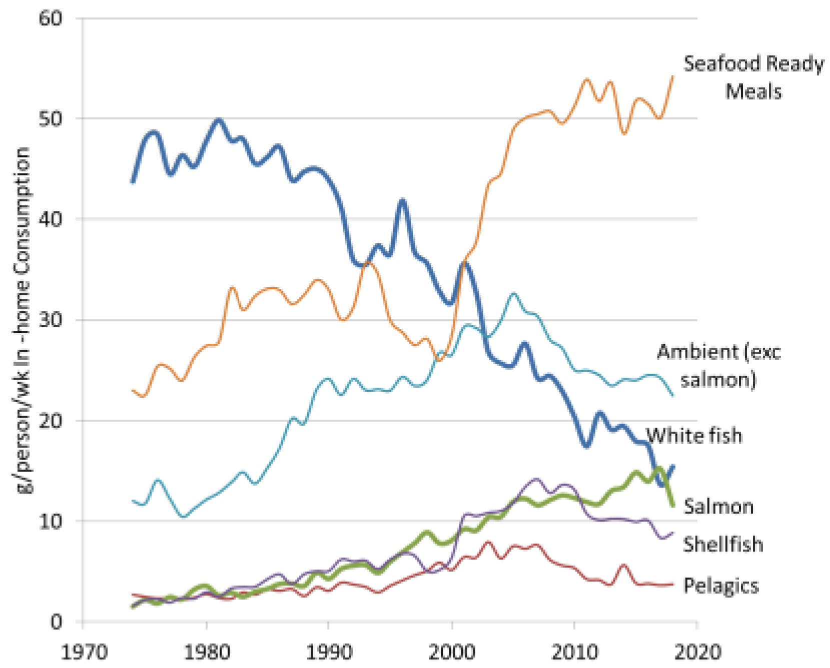
The State of World Fisheries and Aquaculture 2018 FAO Rome. 2018.

- Carp are the most common aquacultured species followed by warm water prawns.
- Inland aquaculture dominates. The production of 45.6 million tonnes of finfish from inland aquaculture represented 56.9% of world total aquaculture production of aquatic animals in 2017.
- The contribution of aquaculture to the total global seafood supply (all uses not just human consumption) has risen steadily from 26% in 2000 to 46% in 2017.
- Farmed seafood is a truly global commodity with species such as salmon commonly originating from UK or Europe and warm water prawns from Asia and the Far East.

Changing tastes in UK seafood

The past 40 years has seen a significant change in the type of seafood eaten by UK households. Since the 1970s, there has been a shift away from traditional wild caught white fish species including cod and haddock, towards farmed seafood species such as salmon and warm water prawns. And more recently, the farmed 'white fish' species including basa, seabass and sea bream and have become popular alternatives to the traditional wild capture white fish species.

Long Term trends UK Seafood Eaten In -Home



Defra Family Food 2019

The consumption of traditional whitefish species has been in steady decline since the 1980s whilst salmon and other farmed seafood species have grown in popularity. Chilled whitefish consumption fell -66% from 1988 to 2018 (latest data), compared to chilled salmon up +226 (Defra family food), Total salmon continued to grow through austerity, despite being over double (104%) the price of total cod in June 2019. Lower prices and improved availability has driven cod consumption in recent years in retail, but 2019 has seen a return to cod consumption decline

Current retail performance of farmed seafood

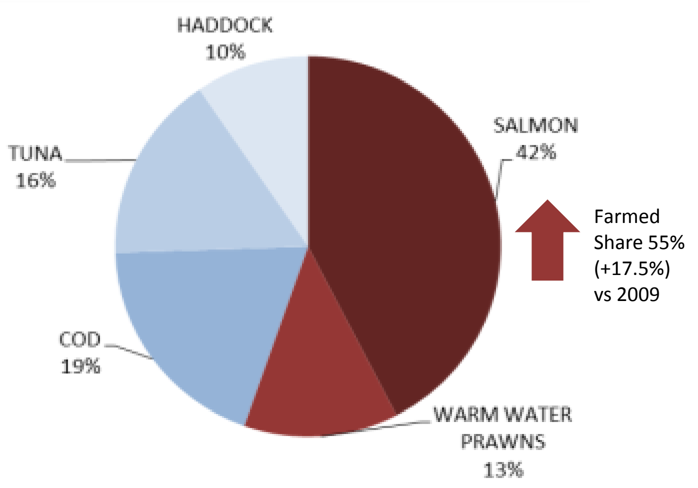
It may be a surprise for UK shoppers to know how much of the seafood they purchase is farmed, and indeed which species are farmed. Many shoppers are aware of the existence of farmed salmon and prawns, but most assume their purchases are wild caught as it's not common practice to have 'farmed' in a prominent place on front of pack. Shoppers are less likely to associate aquaculture with other farmed species such as seabass, oysters, mussels and turbot.

Methodology- Traceability data is not available to establish precise ratio of farmed to wild for each species on retail sale. But import statistics, country of origin and aquaculture production figures, can be used to estimate whether the majority of a given species i.e. salmon, warm water prawns basa, seabass and sea bream are farmed. For the purposes of this factsheet, the assumption has been made that where the majority of supply is estimated to be farmed, the species is classified as farmed.

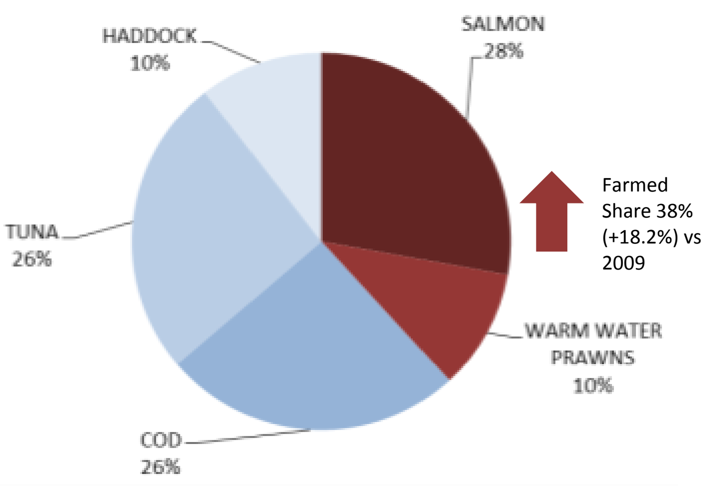
In the 52 wks. to June 2019, farmed seafood was an estimated 55.4% by value, and 38.2% by volume of the UK top five bestselling seafood species. Share of this top five by farmed seafood has increased significantly from 10 years ago, with farmed seafood increasing both value and volume share by 18% from 2009 to 2019. In the 52 weeks to 15th June 2019, UK farmed seafood share of the top 5 seafood species was worth £1.4bn with 88,301 tonnes

For the total seafood category (all seafood species, products and formats), farmed species are estimated to have a 46% and 31% share of value and volume respectively; with a value of £1,6bn and volume of 108,241 tonnes

Farmed Seafood Value Share of top 5 Species 2019



Farmed Seafood Volume Share of top 5 Species

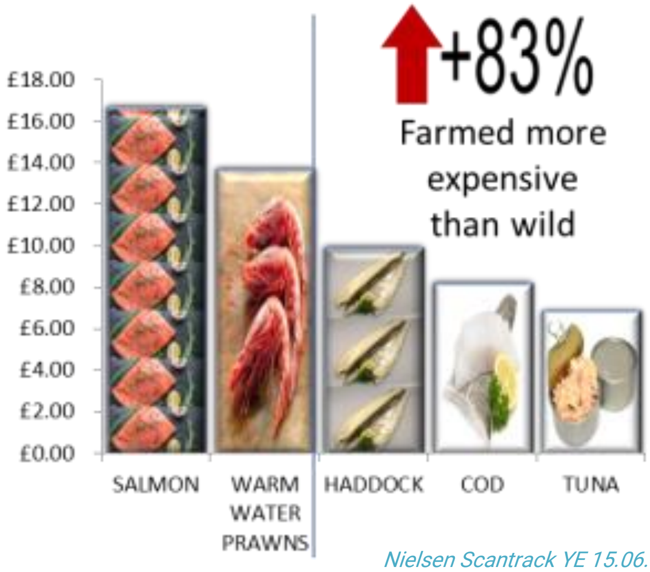


Nielsen Scantrack YE 15.06.19

It's a common consumer misconception that farmed seafood is a cheap and cheerful option. In 2019, a number of farmed species have an average price over double that of cod or haddock. Of the top 5 total species, the average price of the farmed species is £15.13/kg, 83% higher than the average price of the wild caught species (£8.27).

In surveys, seafood shoppers state they are prepared to pay more for fresher/higher quality seafood and may be finding the consistency they are looking for in farmed species

Average Price of Farmed vs Wild in Top 5 Total Retail 2019



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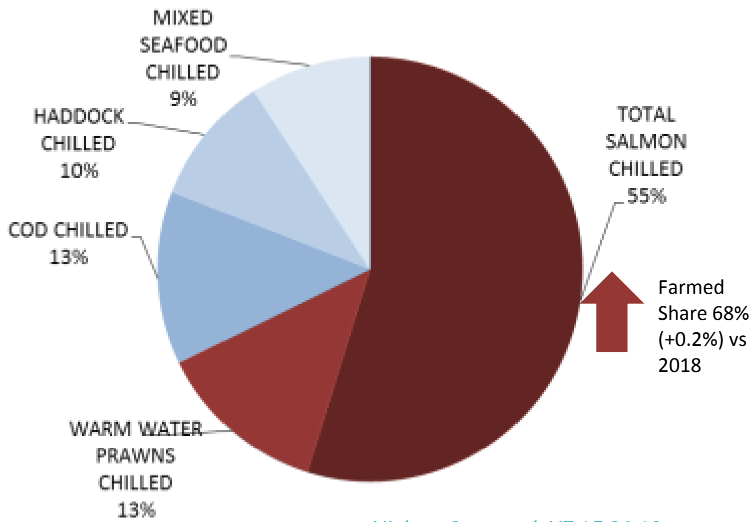
Farmed Seafood by Sector

Farmed seafood is most strongly represented in the chilled sector, taking a significant 68% (+0.2pp vs a year ago) share by value and 57% (+1.6pp vs a year ago) share by volume of the chilled top 5 species. This is without taking into account mixed seafood ranked at number five, which typically contains a large proportion of farmed salmon and sometimes farmed warm water prawns.

Chilled salmon dominates as the most popular chilled species, with warm water prawns second. Farmed species are less prominent in the frozen sector as frozen salmon is currently ranked at number six, poised to displace frozen cold water prawns perhaps in the next 12 months.

Farmed Share of the Top 5 Chilled Sector 2019 (Value)



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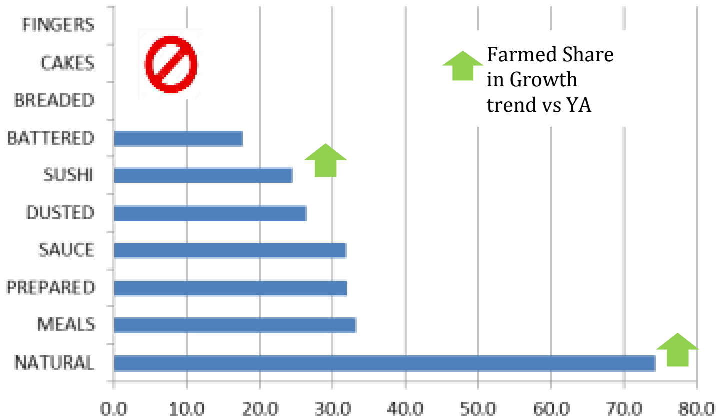
Farmed seafood segment performance

Farmed seafood species, typically salmon, warm water prawns and basa, are ranked in the top 5 species of most of the 10 seafood category segments listed by Nielsen. However, farmed species are not represented in the fingers or breaded segments which are dominated by cod, haddock, pollock and scampi. The strongest segment for farmed seafood is 'natural' where it makes up over three quarters of the segment. The other segments have a similar share of farmed seafood between 20%-35% in the top 5, where present.

Farmed seafood dominates the natural segment with a 74% share of the top 5 natural species; worth £939m (+1.4%) and 50,928 tonnes. Salmon makes up the majority with 56%, and warm water prawns taking 19% of the natural segment top 5.

Over the past year, farmed seafood has only been in growth in the natural and sushi segments. The strongest growth has been in sushi where farmed share of the top 5 grew by 13%

Segments Share of Farmed Seafood Share of top 5 (Value)



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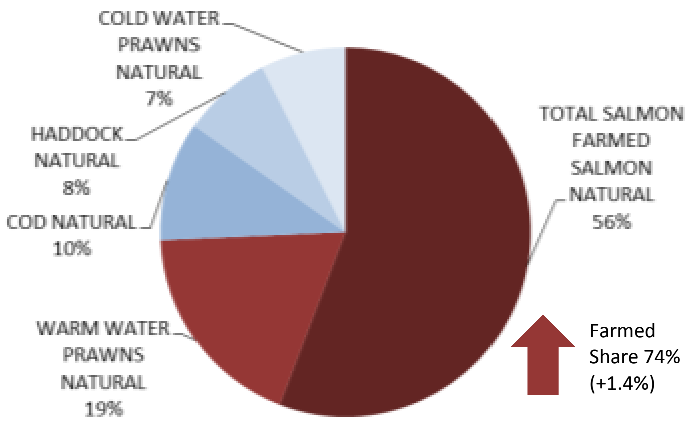
Natural Segment – Farmed Share of Top 5 species UK (Value) 2019



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Farmed Species Performance

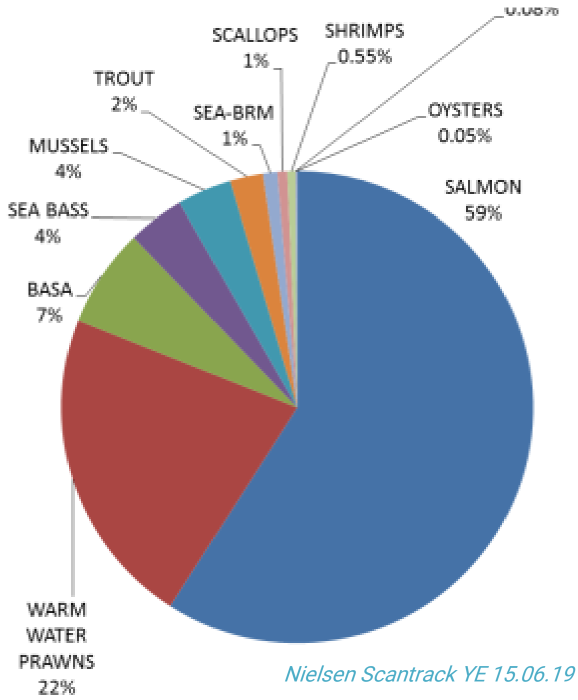
Salmon, warm water prawns, seabass, basa and trout are the top five most popular farmed seafood species in UK multiple retail.

Farmed salmon dominates the UK seafood category accounting for an estimated 28% of all seafood sales by value and 16.4% by volume; and makes up nearly 60% of all farmed species purchases. In the 52wks to June 2019, salmon was worth £1.069bn, (+1.1%) with 64,347 tonnes (+3.7%). Salmon is the only species where the Nielsen data allows an estimation of farmed vs wild to be made. In the 52wks to 15th June 2019, farmed salmon made up over 90% of salmon sold in UK retail by value. The amount of wild caught salmon continues to decrease year-on-year despite being significantly cheaper than farmed

Only salmon and warm water prawns and shrimps were in full growth in the 52 wks. to June 2019. Over the long term, 10 yrs. to June 2019, warm water prawns, basa, seabass, seabream and tilapia were in full growth. It is the 'white fish' alternatives to cod and haddock that have shown some of the fastest growth with basa continuing to be the fastest growing species, with volume and value increases of over 500%, despite having a similar average price (£7.94/kg), to that of cod (£8.15/kg)

Salmon, trout, shrimp and tilapia have had some of the largest long term price increases in the 10 years to 2019 which has impacted on purchase volumes

Top Farmed Species 2019 (Volume)



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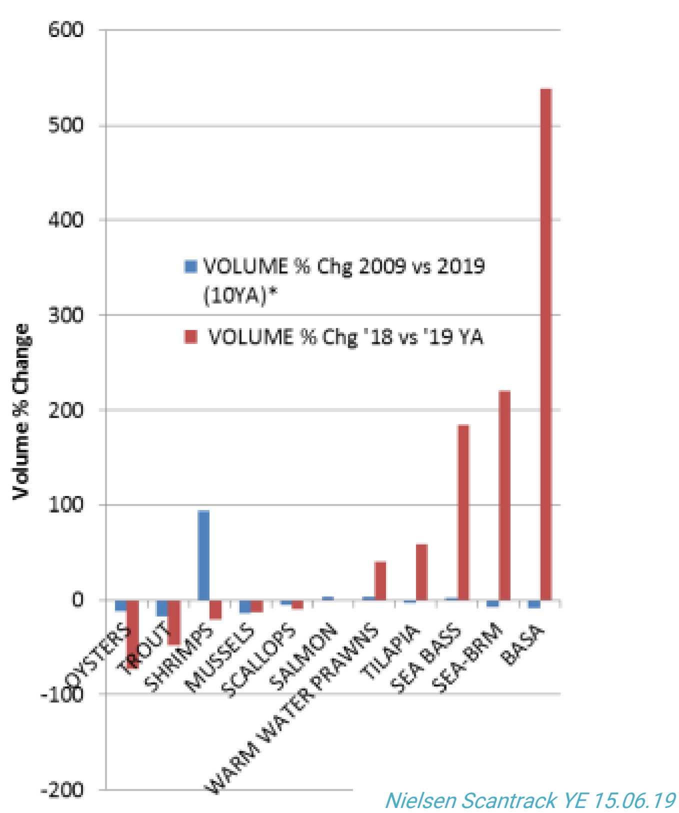
Top Farmed Species Performance 2019



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Farmed Seafood Species Performance to 2019

	Value Sales £ ('000)					Volume Sales (tonnes)					Price per Kg		
	2017 52wks to 15.6.17	2018 52wks to 15.6.18	2019 52wks to 15.6.19	% Chg '18 vs '19	% Chg 2009 vs 2019 (10YA)*	2017 52wks to 15.6.17	2018 52wks to 15.6.18	2019 52wks to 15.6.19	% Chg '18 vs '19	% Chg 2009 vs 2019 (10YA)*	Avg Price 2019	% Chg '18 vs '19	% Chg 2009 vs 2019 (10YA)*
TOTAL SEAFOOD	3,657,583	3,808,127	3,813,921	0.2	20.9	402,521	395,995	392,356	-0.9	-18.0	£9.72	1.1	43.6
SALMON	1,018,725	1,057,303	1,069,358	1	48.5	67,725	62,059	64,347	3.7	-0.8	£16.62	-2.5	49.8
WARM WATER PRAWNS	319,264	321,756	326,479	1	59.6	23,833	23,125	23,954	3.6	40.7	£13.63	-2.0	13.5
SEA BASS	64,665	67,459	67,375	-0	173.0	4,035	4,140	4,232	2.2	183.8	£15.92	-2.3	-3.8
BASA	58,903	62,966	58,651	-7	593.6	8,303	8,124	7,382	-9.1	538.8	£7.94	2.5	8.6
TROUT	35,677	39,146	35,385	-10	-21.3	2,983	2,977	2,463	-17.3	-47.4	£14.37	9.2	49.6
MUSSELS	26,338	26,469	23,223	-12	-3.3	4,675	4,728	4,043	-14.5	-13.3	£5.74	2.6	11.6
SCALLOPS	17,300	16,650	17,538	5.3	9.1	816	784	740	-5.6	-10.1	£23.69	11.6	21.5
SEA-BRM	17,161	17,222	15,314	-11.1	203.5	1,125	1,175	1,080	-8.1	220.6	£14.18	-3.3	-5.3
SHRIMPS	4,539	6,316	10,234	62.0	16.9	159	310	600	93.5	-20.5	£17.07	-16.3	47.2
OYSTERS	1,339	1,281	1,280	-0.1	-13.0	65	57	50	-11.4	-72.4	£25.41	12.8	369.3
TILAPIA	629	600	904	50.6	-47.0	91	87	85	-3.0	58.7	£10.65	55.2	32.1

*Nielsen Scantrack YE 15.06.19(*10yr GB):*

The farmed Seafood Shopper

Key performance indicators (KPIs) show the top two farmed seafood species (salmon and warm water prawns) as having relatively healthy metrics in comparison with total seafood.

In the 52 weeks to June 2019 fewer people purchased salmon but more often with increased spend and larger baskets. For warm water prawns, more people purchased prawns more often but with smaller, more expensive baskets.

Top Farmed Species KPI's 2019

	Penetration (% of shoppers buying)	Annual Frequency of purchase	Annual Purchace volume (kg)	Annual Purchace Value (£)	Annual Spend per Trip (£)	Average Volume per trip (kg)	Average Price/kg
TOTAL SEAFOOD							
16-Jun-18	96.8	30.4	14.8	£129.91	£4.27	0.49	£8.80
15-Jun-19	96.7	30.2	14.5	£130.35	£4.32	0.48	£8.98
% Change	-0.1	-0.9	-1.6	0.3	1.2	-0.8	2.0
TOTAL SALMON							
16-Jun-18	66.4	10.5	3.4	£49.09	£4.66	0.32	£14.44
15-Jun-19	66.1	10.7	3.5	£50.23	£4.71	0.33	£14.43
% Change	-0.4	1.1	2.4	2.3	1.2	1.2	-0.1
WARM WATER PRAWNS							
16-Jun-18	47.0	5.8	1.6	£20.67	£3.59	0.28	£12.91
15-Jun-19	47.1	6.0	1.6	£21.14	£3.51	0.27	£13.06
% Change	0.1	4.9	1.3	2.3	-2.4	-3.5	1.1

Nielsen Homescan YE 15.06.19

Demographics show that farmed seafood shoppers are typically more affluent than the average seafood shopper. Farmed seafood shoppers also belong to smaller one or two member households where it's less common for children to be present. Where children are present, they are more likely to be in the 0 to 4 and 11 to 15 year age brackets. Farmed seafood also over indexes in pre-family and older couples/singles purchases, being less important to new, maturing and established families.

Seafood Demographics % Shoppers (by volume)

	TOTAL FISH	TOTAL SALMON	WARM WATER PRAWNS	SEA BASS	BASA	TROUT	SEA-BRM
CLASS AB	29.4	35.4	33.0	40.7	26.1	34.1	54.2
CLASS C1	27.5	28.2	28.0	27.5	28.6	29.0	23.0
CLASS C2	20.5	16.3	18.6	16.4	22.8	16.7	13.0
CLASS D	11.1	8.8	8.6	5.0	10.1	5.3	3.0
CLASS E	11.5	11.3	11.8	10.4	12.4	14.9	6.7
SIZE 1 MEMBER	23.6	25.0	28.4	23.1	19.6	31.7	30.5
SIZE 2 MEMBERS	42.1	46.2	42.5	53.6	47.2	51.3	44.2
SIZE 3.4 MEMBERS	28.0	24.7	24.9	20.7	27.4	12.8	19.4
SIZE > 5 MEMBERS	6.2	4.1	4.2	2.5	5.8	4.2	5.8
16 TO 34 YEARS	11.6	10.5	10.3	7.0	12.6	4.0	5.7
35 TO 44 YEARS	16.1	14.8	16.1	15.6	14.0	11.6	12.9
45 TO 64 YEARS	36.3	34.7	36.9	34.0	35.3	25.2	42.2
65+ YEARS	36.0	40.0	36.7	43.5	38.1	59.2	39.2
CHILDREN YES	22.6	17.4	19.2	12.6	21.0	10.8	12.5
CHILDREN NO	77.4	82.6	80.8	87.4	79.0	89.2	87.5
CHILD 0 TO 4 YEARS	25.4	26.1	24.4	32.7	24.9	29.2	18.8
CHILD 5 TO 10 YEARS	40.0	37.6	38.9	42.0	39.3	36.6	52.0
CHILD 11 TO 15 YEARS	34.5	36.3	36.7	25.3	35.8	34.2	29.2
PRE FAMILY	5.9	6.8	5.9	4.5	6.8	2.2	4.9
NEW FAMILY	4.7	3.9	3.7	3.8	4.8	2.8	1.4
MATURING FAMILIES	12.0	8.3	9.8	6.3	10.2	5.6	7.3
ESTABLISHED FAMILIES	8.4	7.6	8.1	5.2	8.0	3.9	11.0
POST FAMILIES	16.6	16.7	17.8	20.5	14.3	12.6	17.0
OLDER COUPLES	36.1	39.6	35.3	45.1	41.7	48.3	35.2
OLDER SINGLES	16.3	17.1	19.4	14.5	14.1	24.6	23.2

Nielsen Homescan YE 15.06.19

In recent years, seafood consumers have increased awareness of negative environmental and social issues associated with farmed seafood, but are not necessarily aware that a significant proportion of their seafood purchases are farmed.

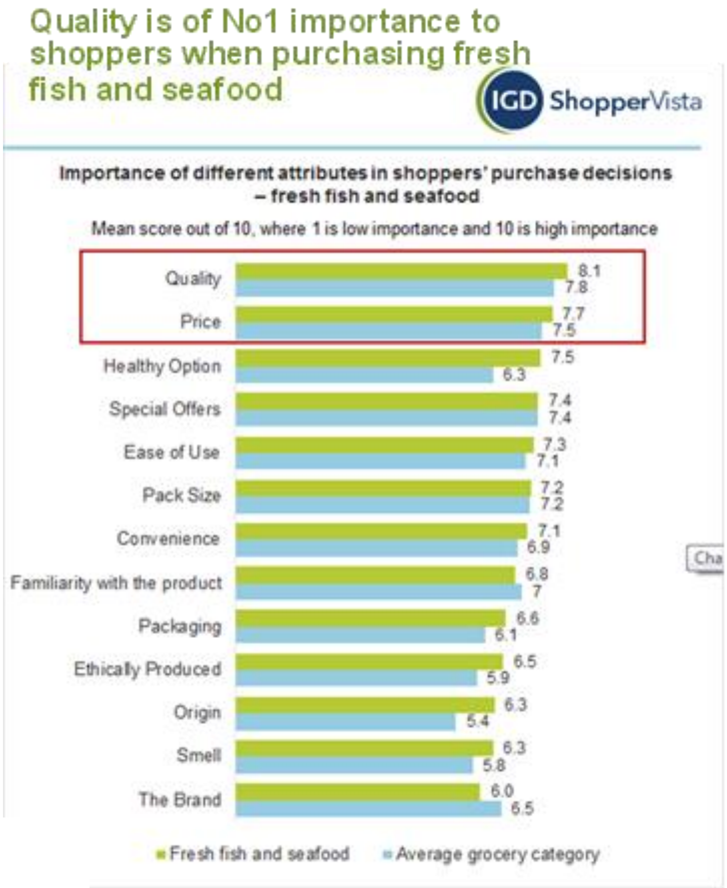
In general consumers are confused by aquaculture/ farmed seafood production and the distribution chain. There tends to be more awareness around farmed fish production (typically salmon) as opposed to shellfish, with the main concerns around fish welfare and effect on the environment. A myriad of certification and labelling programmes have arisen which has led to confusion. To try and combat this, the Global Sustainable Seafood Initiative (GSSI) has developed its global benchmarking tool to measure and compare certification schemes and standards performance across seafood production.

There are a lot of consumer misconceptions around farmed seafood, for example that it is lower quality or not as good for them. These misconceptions are often based on media articles which may not be representative of the products on sale.

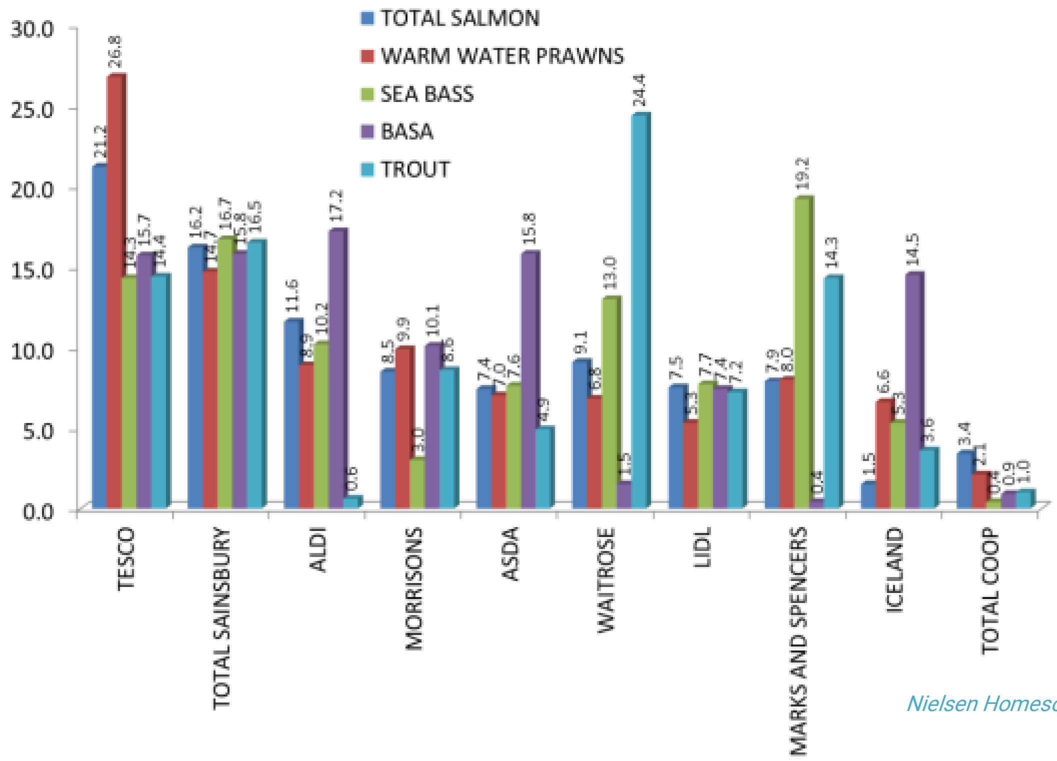
It's a common myth that farmed seafood is cheaper in retail than wild caught. When it comes to price, farmed species typically have an average price twice that of wild caught and seafood consumers have consistently been increasing the amount of farmed seafood they buy each year.

The seafood shopper is quite unique. Seafood is one of the rare categories where taste and quality is valued above price. Health is also important to seafood shoppers, ranked in the top 3

Interestingly, different retailers overtrade in different farmed seafood species. Farmed seafood sales are split between the different retailers dependent on species. Tesco is currently the largest seafood retailer by both volume and value, taking the largest share of salmon and warm water prawns, whilst M&S and Sainsbury's overtrade in seabass. Aldi and Asda take the largest share of basa, whilst Waitrose and Sainsbury dominate trout sales



. Retailer Share of Farmed Seafood (Value Share) 2019



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Key Facts:

- Farmed seafood plays an important role in feeding the world. In 2016, farmed seafood made up the majority (52%) of global seafood supply for human consumption at 80 million tonnes compared to 73 million tonnes from wild capture fisheries. The FAO predict global farmed seafood supply for human consumption will hit 109 million tonnes, exceeding supply from wild caught by 47% in 2030.
- The past 40 years has seen a significant change in the type of seafood we eat in the UK. Since the 1970s, there has been a shift away from traditional wild caught white fish species like cod and haddock towards farmed seafood species such as salmon and warm water prawns. And more recently, the farmed 'white fish' species, basa, seabass and sea bream, have become popular alternatives to the traditional white fish species.
- Farmed seafood dominates seafood sales in UK retail and continues to grow share. It is estimated that farmed seafood currently makes up 55.4% of value, and 38.2% by volume of the UK top five bestselling seafood species, up 18% from 2009 to 2019. In the 52 weeks to 15 June 2019 UK top 5 farmed seafood totals were worth £1.4bn with 88,301 tonnes.
- Many shoppers see farmed seafood as a cheap alternative but in reality many of the farmed species have an average price over double that of cod or haddock. The average price of top 5 farmed species at £15.13/kg is 83% higher than the average price of the wild caught top 5 (£8.27)
- Farmed seafood is most strongly represented in the chilled sector, and continues to grow share; taking a 68% (+0.2pp) share by value and 57% (+1.6pp) share by volume of the top 5 chilled species
- Farmed seafood dominates the natural segment with a 74% share of the top 5 natural species; worth £939m (+1.4%) and 50,928 tonnes. Salmon makes up the majority with 56%, and warm water prawns taking 19% of the natural segment top 5.
- Salmon, warm water prawns, seabass, basa and trout are the top five most popular farmed seafood species in UK multiple retail
- Farmed salmon dominates the UK seafood category accounting for an estimated 28% of all seafood sales by value and 16.4% by volume; and makes up nearly 60% of all the farmed species purchases. In the 52wks to June 2019, salmon was worth £1.069bn, (+1.1%) with 64,347 tonnes (+3.7%).
- It is the 'white fish' alternatives to cod and haddock that have shown some of the fastest growth, with basa, continuing to be the fastest growing species with volume and value increases of over 500% despite a similar average price to cod
- Demographics show that farmed seafood shoppers typically are more affluent than the total seafood benchmark. Farmed seafood shoppers also belong to smaller one or two member households.

Data Sources: (%) values represent change from the previous year unless otherwise stated

Nielsen:

- The State of World Fisheries and Aquaculture 2018 FAO Rome. 2018.
- FISHERY AND AQUACULTURE STATISTICS Yearbook 2017, FAO Rome 2019
- Seafish Aquaculture Profiles –https://seafish.org/aquaculture-profiles/
- Scantrack – UK EPOS from key retailers (including composite data from discounters Aldi & Lidl and N. Ireland) excludes seafood sandwiches
- Homescan – GB (including discounters) consumer panel of 15,000 households excludes seafood sandwiches
- (%) values represent change from the previous year unless otherwise stated
- IGD Identifying challenges and opportunities within fresh fish 2017
- Seafood Trends Across U.K Restaurants – Technomic July 2018

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