

Monthly Highlights

No. 4 / 2022

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According to data collected by EUMOFA from 11 EU Member States, common shrimp (12%) and red and blue shrimp (10%) together accounted for 22% of total first-sales value of crustaceans recorded in January 2022.

Over the 36-month observation period (February 2018 to January 2022), the weighted average first-sales price of common shrimp in France was 10,98 EUR/kg, which was 239% higher than in the Netherlands (3,24 EUR/kg) and 55% higher than in Spain (7,08 EUR/kg).

Both the price and volume of frozen cuttlefish, with or without shell, from Morocco have exhibited an upward trend in 2022.

Salmon is the second most consumed seafood species in the EU after tuna. In 2019, per capita apparent consumption of salmon was estimated at 2,36 kg LWE, an increase of 5% compared to 2018.

In 2021, EU imports from Bangladesh amounted to 21.592 tonnes for a value of EUR 190 million.

2020 saw lower exports and imports of caviar. The sharpest decline in trade was seen at the initial impact of the pandemic, during March and April of 2020, partly due to logistical problems and decline in demand.

On 23 March 2022, the European Commission presented a range of actions to enhance global food security and to support farmers and consumers in the EU in light of rising food prices and input costs, such as energy and fertilisers.



EUMOFA

European Market Observatory for Fisheries and Aquaculture Products



1. First sales in Europe

In January 2022, 11 EU Member States (MS), Norway, and the United Kingdom reported first-sales data for 10 commodity groups¹. First-sales data are based on sales notes and data collected from auction markets. First-sales data analysed in the section "First sales in Europe" are extracted from EUMOFA².

1.1. January 2022 compared to January 2021

Increases in value and volume: Bulgaria, France, the Netherlands, Portugal, and Sweden recorded an increase in both first-sales value and volume. The Netherlands and Portugal were the countries with the highest relative increases due to a greater supply of small pelagics.

Decreases in value and volume: Cyprus, Estonia, Latvia, Lithuania, and Norway recorded decreases in both first-sales value and volume. Estonia, Latvia, and Lithuania recorded the highest relative decreases, which were due to a smaller supply of herring and sprat.

JANUARY OVERVIEW OF FIRST SALES FROM THE REPORTING COUNTRIES Table 1 (volume in tonnes and value in million EUR) *

	Janua 2020	ry)	Janu 202	ary 21	Janu 202	ary 2	Change January	from 2021
Country	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Bulgaria	43	0,1	26	0,1	27	0,1	3%	27%
Cyprus	28	0,2	23	0,2	22	0,2	-4%	-11%
Estonia	5.677	1,9	9.345	2,2	6.364	1,6	-32%	-25%
France	16.222	57,2	16.041	53,5	16.775	62,2	5%	16%
Italy	6.611	25,8	5.134	20,5	4.553	20,5	-11%	0%
Latvia	3.819	0,7	3.829	0,8	2.524	0,6	-34%	-28%
Lithuania	134	0,1	349	0,2	174	0,1	-50%	-41%
Netherlands	12.467	22,3	6.798	14,2	8.034	18,7	18%	32%
Portugal	4.497	16,2	4.138	15,0	5.608	23,3	36%	56%
Spain	27.934	102,0	23.610	80,1	21.838	87,6	-8%	9%
Sweden	11.455	5,7	21.824	7,3	23.817	9,3	9%	29%
Norway	229.244	250,9	271.865	218,8	196.587	210,1	-28%	-4%
UK	33.157	73,3	46.631	68,7	43.052	89,5	-8%	30%

Possible discrepancies in % changes are due to rounding.

* Volumes are reported in net weight for EU Member States and the UK, and in live weight equivalent (LWE) for Norway. Prices are reported in EUR/kg (without VAT). For Norway, prices are reported in EUR/kg of live weight.

The most recent weekly first-sales data (up to week 17 of 2022) are available via the EUMOFA website, and can be accessed here.

The most recent monthly first-sales data for February 2022 are available via the EUMOFA website and can be accessed here.

Overview | 1. First sales in Europe | 2. Extra-EU imports | 3. Consumption

¹ Bivalves and other molluscs and aquatic invertebrates, cephalopods, crustaceans, flatfish, freshwater fish, groundfish, salmonids, small pelagics, tuna and tuna-like species, and other marine fish. ² First sales data updated on 16.3.2022.

1.2. First sales in selected countries

First sales data analysed in this section are extracted from EUMOFA³.

Table 2. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN BULGARIA

Bulgaria	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan 2022 vs	EUR 0,07 million,	27 tonnes,	Clam, other marine fish*, red mullet.
Jan 2021	+27%	+3%	

Figure 1. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN BULGARIA, JANUARY 2022



Table 3. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN CYPRUS

Cyprus	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan 2022 vs	EUR 0,15 million,	22 tonnes,	Red mullet, squid, picarel, other seabream* (other than gilthead seabream).
Jan 2021	-11%	-4%	

Figure 2. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN CYPRUS, JANUARY 2022



Percentages show change from the previous year. *EUMOFA aggregation for species

³ First sales data updated on 16.03.2022.

Overview | 1. First sales in Europe | 2. Extra-EU imports | 3. Consumption

Estonia	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan 2022 vs	EUR 1,6 million,	6.364 tonnes,	Sprat, herring, other freshwater fish*, pike-perch.
Jan 2021	-25%	-32%	

Table 4. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN ESTONIA





Percentages show change from the previous year. *EUMOFA aggregation for species.

Table 5. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN FRANCE

France	First-sales value / trend %	First-sales volume / trend %	Main contributing species	Notes
Jan 2022 vs	EUR 62,2 million,	16.775 tonnes,	Squid, octopus, eel,	Octopus recorded high increases in first sales in January 2022 compared to the same month in 2021, for reasons that remain unknown. Cephalopods combine rapid growth and short lifespans. Scientific evidence ⁴ suggests that they may be benefiting from global climate change.
Jan 2021	+16%	+5%	scallop.	





Percentages show change from the previous year.

⁴ Rosa et al., 2019, Global Patterns of Species Richness in Coastal Cephalopods, Frontiers in Marine Science https://doi.org/10.3389/fmars.2019.00469

Italy	First-sales value / trend %	First-sales volume / trend %	Main contributing species	Notes
Jan 2022 vs Jan 2021	EUR 20,5 million, 0%	4.533 tonnes, -11%	Value: Anchovy, miscellaneous shrimps*, clam, hake. Volume: Clam, other marine fish*; sardine, squillid.	In January 2022 compared to January 2021, MCS grouping of miscellaneous shrimps recorded increases in first sales. Giant red shrimp recorded the highest increase among 17 different shrimp species (ERS) belonging to this grouping. There are two main explanations for this increase. Firstly, new online marketing approaches have been developed for this product, which has probably generated an increase in demand and raised its value. Secondly, the demand for giant red shrimp in January 2021 (compared with January 2022) was impacted by the second wave of Covid-19, lowering the demand in the market.

Table 6. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN ITALY





Table 7. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN LATVIA

Latvia	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan 2022 vs	EUR 0,6 million,	2.524 tonnes,	Herring, sprat, smelt.
Jan 2021	-28%	-34%	





Percentages show change from the previous year.

Table 8. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN LITHUANIA					
	_	First-sales	First-sales	Main contributing species	

Lithuania	First-sales value / trend %	First-sales volume/ trend %	Main contributing species
Jan 2022 vs	EUR 0,1 million,	174 tonnes,	Smelt, herring, sprat.
Jan 2021	-41%	-50%	

Figure 7. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN LITHUANIA, JANUARY 2022



Table 9. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN THE NETHERLANDS

The Netherlands	First-sales value / trend %	First-sales volume / trend %	Main contributing species	Notes
Jan 2022 vs Jan 2021	EUR 18,7 million, +32%	8.034 tonnes, +18%	Herring, common sole, shrimp <i>Crangon</i> spp., European plaice.	First sales of herring in January 2022 were significantly higher compared to January 2021. However, production recorded in January 2022 is more in line with the productions recorded in the month of January during previous years: 7.900 tonnes in January 2020; 3.600 tonnes in January 2019; and 5.200 tonnes in January 2018. Therefore, January 2021 appears to be the exception due to changes in fishing strategy and limited access to Norwegian waters for EU vessels due to post-Brexit negotiations.



Figure 8. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN THE NETHERLANDS, JANUARY 2022

Portugal	First-sales value / trend %	First-sales volume / trend %	Main contributing species	Notes
Jan 2022 vs Jan 2021	EUR 23,3 million +56%	5.608 tonnes, +36%	Anchovy, octopus, squid, other seabreams* (other than gilthead seabream).	Both squid and anchovy recorded high first sales in January 2022 compared to January 2021. Cephalopods such are squids combine rapid growth, short lifespans, and flexible development but there are no clear factors to explain increases in abundance. However, the difference between the increases in volume and value of squid could be explained by the species within the pool of eight species included under the commercial denomination "squid" (MCS). The data show that the neon flying squid (<i>Ommastrephes bartramii</i>) has a limited value in the market compared to other squid species such as European squid. For anchovy, the scientific advice reports stocks improvement (for both southern and western stocks) in comparison to 5 or 10 years ago. In fact, the advice on fishing opportunities for 2021 and 2022, in particular the western stock (caught by the Portuguese fleet), increases catches by 80% compared to the previous year. This is remarkable because anchovy is a short-lived species, and catches are determined by recruitment 2 years prior. Therefore, the increase is explained by the positive status of the stock.

Table 10. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN PORTUGAL

Figure 9. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN PORTUGAL, JANUARY 2022



Table 11. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN SPAIN

Real Control	First-sales	First-sales	Main contributing species
Spain	value / trend in %	volume / trend %	
Jan 2022	EUR 87,6 million	21.838 tonnes,	Value: Swordfish, octopus, miscellaneous shrimps*, squid.
vs Jan 2021	+9%	-8%	Volume: Yellowfin tuna, hake, anchovy, blue whiting.

Figure 10. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN SPAIN, JANUARY 2022



Percentages show change from the previous year. *EUMOFA aggregation for species

Table 12. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN SWEDEN

Sweden	First-sales value / trend in %	First-sales volume / trend %	Main contributing species	Notes
Jan 2022 vs	EUR 9,3 million,	23.817 tonnes,	Sprat, mackerel, other	In January 2022 compared to January 2021, first sales of mackerel sharply increased due to the Swedish fleet operating in the North Sea area and high catches in January 2022. No operation in the North Sea area was observed in January 2021. Mackerel prices in January 2022 were 46% lower when compared with 2021 and 6% lower when compared with 2020. As such, it is noticeable that some of the increased mackerel supply to the market was caused by increases in mackerel quota by 34% from 2021 to 2022.
Jan 2021	+29%	+9%	marine fish*, cod.	





Percentages show change from the previous year. *EUMOFA aggregation for species

Table 13. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN NORWAY

Norway	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan 2022 vs	EUR 210,1 million	196.587 tonnes,	Herring, mackerel, coldwater shrimps, cod.
Jan 2021	-4%	-28%	

Figure 12. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN NORWAY, JANUARY 2022



Table 14. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN THE UNITED KINGDOM

The United Kingdom	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan 2022 vs	EUR 89,5 million	43.052 tonnes,	Value : mackerel, monkfish, squid.
Jan 2021	+30%	-8%	Volume : mackerel, Norway lobster, sprat.

Figure 13. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN THE UNITED KINGDOM, JANUARY 2022



Percentages show change from the previous year.

1.3. Comparison of first-sales prices of selected species in selected countries⁵



Figure 14. FIRST-SALES PRICES OF RED MULLET IN CYPRUS, ITALY, AND SPAIN

EU first sales of **red mullet** occur in multiple countries, including **Cyprus**, **Italy**, and **Spain**. In January 2022, the average first-sales prices of red mullet were 15,77 EUR/kg in Cyprus (up by 7% from the previous month and down by 3% from the previous year); 4,87 EUR/kg in Italy (up from both December 2021, and January 2021 by 22% and 17%, respectively); and 7,31 EUR/kg in Spain (up from the previous month by 22%, and down from the previous year by 1%). In January 2022, supply increased in Spain by 9%, and decreased in both Cyprus and Italy (-24% and -17%, respectively), relative to the previous year. Volumes sold in the three markets are seasonal: in Cyprus, supply peaks in November–March, and in September–November for Italy and Spain. Over the past 36 months, red mullet prices showed an upward trend in Cyprus and Spain, and a slightly downward trend in Italy. At the same time, supply showed a downward trend in Cyprus and Spain, and upward trend in Italy.



Figure 15. FIRST-SALES PRICES OF SOLE (OTHER THAN COMMON SOLE), IN FRANCE, PORTUGAL, AND SPAIN

EU first sales of other **sole**⁶ (other than common sole) occur mainly in **France**, **Portugal**, and **Spain**. In January 2022, the average first-sales prices of sole were: 6,57 EUR/kg in France (up from the previous month and year by 2% and 9%, respectively); 7,09 EUR/kg in Portugal (down from December 2021 by 11%, and up from January 2021 by 25%); and 8,85 EUR/kg in Spain (up from both the previous month and year by 39% and 13%, respectively). In January 2022, supply decreased in Portugal (–26%), and increased in both France and Spain (+19%, and +1%, respectively), relative to the previous year. In Spain, supply does not seem to exhibit a clear seasonality, whereas in France it peaks in May/June–July, and in Portugal

⁶ Include follwoing ERS species sold in FR, PT, and ES: Adriatic sole, Cadenat's sole, deep-water sole, foureyed sole, Guinean sole, Klein's sole, lemon sole, ocellated wedge sole, Portuguese sole, sand sole, Senegalese sole, solenette, thickback sole, thickback sole nei, wedge sole, West coal sole.

⁵ First sales data updated on 20.03.2022.

in May, October, and November. Over the 36-month period observed, sole prices exhibited an upward trend in all three markets, while volume experienced a slightly increasing trend.





EU first sales of **turbot** occur predominantly in **the Netherlands** but also in other countries such as **France** and **Portugal**. In January 2022, the average first-sales prices of turbot were 19,94 EUR/kg in France (down from the previous month by 30% and up from the previous year by 43%); 15,54 EUR/kg in the Netherlands (down from December 2021 by 1%, and up from January 2021 by 98%); and 17,94 EUR/kg in Portugal (down by 25% from December 2021 and up by 19% from January 2021). In January 2022, supply decreased in the Netherlands (–48%) and increased in France and Portugal (+6% and +22%, respectively), relative to the previous year. Volumes sold in the three markets are seasonal: in France, supply peaks in May–June/July; in the Netherlands, in September-November; and in Portugal, in April. Over the past three years, in all three countries, prices exhibited an upward trend, while supply went down in France and increased in the Netherlands and Portugal.

1.4. Commodity group of the month: crustaceans⁷





The "**Crustaceans**" commodity group (CG⁹) recorded the sixth highest first-sales value and eighth highest volume out of the 10 CGs recorded in January 2022¹⁰. First sales reached a value of EUR 21,4 million and a volume of 2.436 tonnes, representing an increase of 10% and decrease of 3%, respectively, compared to January 2021. In the past 36 months, the highest first-sales value of crustaceans was registered at EUR 49,9 million, in December 2021, while the lowest value was in January 2021 at EUR 18,8 million.

The crustaceans commodity group includes 11 main commercial species (MCS): crab, lobster *Homarus* spp., common shrimp, rock lobster and sea crawfish, shrimp *Crangon* spp., coldwater shrimps, deep-water rose shrimps, warmwater shrimps, other miscellaneous shrimps, squillid, and the grouping "other crustaceans"¹¹.

At Electronic Recording and Reporting System (ERS) level, common shrimp (12%) and red and blue shrimp (10%) together accounted for 22% of the total first-sales value of crustaceans of all reporting countries¹² recorded in January 2022.

1.5. Focus on common shrimp



Common shrimp (*Crangon crangon*), also called brown shrimp, belongs to the genus *Crangon*, which is a part of the family of Crangonidae. The distribution of this small crustacean ranges as far north as the Baltic Sea, to the south of the Atlantic, and also in the Mediterranean and Black Seas. The species is a very valuable fisheries resource in the North Sea and the Adriatic Sea and Black Sea¹³. During the day, it remains buried in the sand to escape predatory birds and fish, with only its antennae protruding. Adults live near the sea-floor,

especially in the shallow waters of estuaries or near the coast. Females reach sexual maturity at a length of around 22–43 mm, while males are mature at 30–45 mm. Common shrimps are generally short-lived $(1,5 - 2,0 \text{ years})^{14}$. They are popular in Belgium, the Netherlands, northern Germany, and Denmark. Given its short lifespan, the vast majority of the annual catch has been recruited to the fishery during that year.

This species has been mainly exploited by net or trawl fisheries in the northeast Atlantic Ocean and the Mediterranean¹⁵. The main EU management measures in the common shrimp fishery include mandatory fishing licences, restricted access to the fishery for national vessels out to 3 nautical miles (nm), vessel number and engine capacity restrictions, and mesh size

⁷ First sales data updated on 16.03.2022.

⁸ Norway and the UK excluded from the analyses.

⁹ Annex 3: http://eumofa.eu/supply-balance-and-other-methodologies

¹⁰ More data on commodity groups can be found in Table 1.2 of the Annex.

¹¹ EUMOFA aggregation for species (Metadata 2, Annex 3: http://eumofa.eu/supply-balance-and-other-methodologies).

¹² Norway and the UK excluded from the analyses – no data at ERS level available.

 ¹³ http://dare.ubvu.vu.nl/bitstream/handle/1871/16129/abstract%20english.pdf?sequence=4&isAllowed=y
 ¹⁴ https://www.msc.org/docs/librariesprovider8/de/zertifizierung-nordseekrabben/20171103-nsbs-pcr-final.pdf

¹⁵ http://www.fao.org/fishery/species/3435/en

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restrictions (at least 16 mm) for direct fishing for shrimps¹⁶. The common shrimp fishery primarily takes place in coastal zones, which are characteristically nursery areas for many commercially exploited and non-commercial fish species, and are in many cases also designated as Natura 2000 sites¹⁷.

Selected countries

Table 15. COMPARISON OF COMMON SHRIMP FIRST-SALES PRICES, MAIN PLACES OF SALE, AND CONTRIBUTION TO OVERALL SALES OF CRUSTACEANS IN SELECTED COUNTRIES

Common shrimp		Changes in c first sales Ja	ommon shrimp In 2022 (%)	Contribution of common shrimp to	Principal places of sale in January 2022 in terms of first-sales value	
		Compared to Jan 2021	Compared to Jan 2019	total crustaceans first sales in January 2022 (%)		
France	Value	+195%	+91%	3%	Pornic, Le Croisic, Le Grau-du-Roi	
	Volume	+201%	+125%	2%		
The	Value	+110%	+40%	94%	Harlingen, Wieringen/Den	
Netherlands	Volume	+38%	+12%	93%	oever, zoukarnp.	
Spain	Value	-94%	-97%	0,006%	Aguilas (100% of sales).	
	Volume	-94%	-98%	0,001%		





Over the past 36 months, the highest first sales of common shrimp in **France** occurred in July 2021 (14 tonnes) and August 2021 (13 tonnes). Fishing activity is low in winter, while its peak occurs during warmer periods of the year, mainly in summer.

¹⁶ Regulation (EU) 2019/1241 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32019R1241

¹⁷ http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2014/Special%20Requests/Germany_NL_Crangon_advice.pdf



Figure 19. FIRST SALES: COMPOSITION OF "CRUSTACEANS" (ERS LEVEL) IN FRANCE IN VALUE AND VOLUME, JANUARY 2022

Figure 20. COMMON SHRIMP: FIRST SALES IN THE NETHERLANDS, FEBRUARY 2018 - JANUARY 2022



Over the past 36 months in **the Netherlands**, the highest first sales of common shrimp occurred in September and October every year, peaking in October 2020 when 2.711 tonnes were sold. The Dutch common shrimp fishery is characterised by a high supply during autumn months, while the low season runs from January to May.

Figure 21. FIRST SALES: COMPOSITION OF "CRUSTACEANS" (ERS LEVEL) IN THE NETHERLANDS IN VALUE AND VOLUME, JANUARY 2022





Figure 22. COMMON SHRIMP: FIRST SALES IN SPAIN, FEBRUARY 2018 - JANUARY 2022

Over the past 36 months in **Spain**, the highest first sales of common shrimp occurred in October 2019 when 682 kg were sold. During the observed period there are no clear trends in fishery seasonality as first sales fluctuated throughout the year, mainly depending on market demand. Also, higher spikes in sales were due to overall lower supply caught and sold by Spanish fleet.

Figure 23. FIRST SALES: COMPOSITION OF "CRUSTACEANS" (ERS LEVEL) IN SPAIN IN VALUE AND VOLUME, JANUARY 2022



Price trend



Figure 24. COMMON SHRIMP: FIRST-SALES PRICES IN SELECTED COUNTRIES, FEBRUARY 2018 -JANUARY 2022

Over the 36-month observation period (February 2019 to January 2022), the weighted average first-sales price¹⁸ of common shrimp in **France** was 10,98 EUR/kg, which was 239% higher than in **the Netherlands** (3,24 EUR/kg) and 55% higher than in **Spain** (7,08 EUR/kg). The low average price in the Netherlands could be explained by the fact that in France, shrimps are mostly consumed fresh and so fetch a higher price, while they are mostly sold processed (packs of unshelled shrimp) in the Netherlands. Another reason for such a price difference is that common shrimp sees mass production and consumption in the Netherlands, while in France and Spain quantities are lower but prices are high.

In **France** in January 2022, the average first-sales price of common shrimp (10,52 EUR/kg) decreased by 2% compared with January 2021, and by 15% compared with the same month of 2020. During the past 36 months, average price ranged from 7,88 EUR/kg for 8 tonnes in April 2020, to 15,74 EUR/kg for 4 tonnes in May 2021.

In **the Netherlands** in January 2022, the average first-sales price of common shrimp (4,93 EUR/kg) increased by 52% from January 2021 and increased by 26% relative to January 2020. During the observed past 36 months, the lowest average price at 2,52 EUR/kg for 1.674 tonnes was seen in September 2019, while the highest average price was recorded in April 2021 at 5,82 EUR/kg, for 304 tonnes.

In **Spain** in January 2022, the average first-sales price of common shrimp (5,75 EUR/kg) increased by 3% compared with both January 2021 and 2020. During the past 36 months, average price ranged from 3,48 EUR/kg for 683 kg in October 2019, to 13,01 EUR/kg for 31 kg in August 2019.

¹⁸ Weighted average price.

1.6. Focus on blue and red shrimp



Source: Scandinavian

Fishing Year Book

The blue and red shrimp (*Aristeus antennatus*) is a deep-sea benthic crustacean which is a typical target species for demersal fisheries. The species grows up to 220 mm long and lives on soft seabeds, usually at depths of 200–1.440 m. It is distributed across the Mediterranean and Atlantic coastlines from Portugal to Cape Verde. In the Indian Ocean, it is found off the Maldives and Zanzibar, and off Mozambique and South Africa. The main reproductive period in the Catalan Sea off Spain (north-west Mediterranean) is highly seasonal, extending from late spring to summer, and peaking during summer

months. In comparison, longer peak periods were reported in the eastern Mediterranean, lasting almost seven months around Greece¹⁹.

The blue and red shrimp is one of the most economically important demersal resources in the Mediterranean Sea²⁰. The species is fished with bottom trawls in submarine canyons, and near shallower waters, at depths of between 400 and 800 m off the coast of northwest Africa and off the Mediterranean coasts of Spain, France, Italy, and Malta²¹. In the EU, blue and red shrimp is managed through a multiannual plan for the conservation and sustainable exploitation of demersal stocks in the western Mediterranean Sea²².

Selected countries

Table 16. COMPARISON OF BLUE AND RED SHRIMP FIRST-SALES PRICES, MAIN PLACES OF SALE AND CONTRIBUTION TO OVERALL SALES OF CRUSTACEANS IN SELECTED COUNTRIES

Blue and red shrimp		Changes in blue and redshrimp first sales Jan 2022(%)Comparedto JanJan 20192021		Contribution of blue and red shrimp to total crustaceans first sales in January 2022 (%)	Principal places of sale in January 2022 in terms of first-sales value	
Italy	Value	+80% +47%	-16%	12% 6%	Mazara del Vallo, Brindisi, Mola di Bari .	
	votume	. 12 /0	12 /0			
Portugal	Value	NA ²⁵	-36%	0,03%	Aveiro, Viana do Castelo (100% of sales)	
rontugut	Volume	NA	+18%	0,02%		
Spain	Value	+88%	-35%	15%	Denia, Tarragona, Rosas.	
	Volume	+101%	-56%	3%		

Mediterranean. Sci. Mar. 1993, 57, 183–189.

¹⁹ https://doi.org/10.1155/2009/979512

²⁰ Gorelli, G, Company, J.B., Bahamón, N, Sardà, F. Improving codend selectivity in the fishery of the deep-sea red shrimp Aristeus antennatus in the northwestern Mediterranean Sea. https://scientiamarina.revistas.csic.es/index.php/scientiamarina/article/view/1729

²¹ Demestre, M., Lleonart, J. Population dynamics of Aristeus antennatus (Decapoda: Dendrobranchiata) in the northwestern

²² Regulation (EU) 2019/1022 https://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX:32019R1022

²³ Data are not available.



In **Italy**, over the past 36 months (January 2022-February 2019) the blue and red shrimp fishery was highest during summer. The greatest peak in first sales was recorded in July 2020, when 81 tonnes were sold. The fishery was at its lowest levels during autumn and winter.

Figure 26. FIRST SALES: COMPOSITION OF "CRUSTACEANS" (ERS LEVEL) IN ITALY IN VALUE AND VOLUME, JANUARY 2022





Figure 27. BLUE AND RED SHRIMP: FIRST SALES IN PORTUGAL, FEBRUARY 2018 - JANUARY 2022

In **Portugal**, over the past 36 months the blue and red shrimp fishery had the highest first sales during summer periods, making it a seasonal fisheries species. The highest first sales were recorded in July 2020 when 13 tonnes were sold.







In **Spain**, over the past 36 months the blue and red shrimp fishery was highest during summer months, mainly in July and August. The greatest peak in first sales was recorded in July 2020 when 139 tonnes were sold. The fishery was at its lowest levels during the winter when the price is higher due to increased demand.

Price trend





Over the 36-month observation period (February 2019 – January 2022), the weighted average first-sales²⁴ price of blue and red shrimp in **Spain** (37,61 EUR/kg) was 132% higher than that in **Italy** (16,24 EUR/kg), and 26% over that in **Portugal** (29,78 EUR/kg). In **Italy**, in January 2022 the average first-sales price of blue and red shrimp was 19,67 EUR/kg, 27% over that of January 2021, and 44% over the same month in 2020. The lowest price in the past 36 months was registered in May 2020 at 13,11 EUR/kg for 58 tonnes. The highest price of 24,08 EUR/kg was observed in September 2021 when the supply was lowest (19 tonnes).

In **Portugal** in January 2022, the average first-sales price of blue and red shrimp (5,79 EUR/kg) decreased by 46% compared to January 2020. In January 2021, there were no recorded first sales of the species, hence comparison with January 2022 is not possible. The lowest average price in the observed period was registered in January 2022 at 5,79 EUR/kg for 13 kg. The highest average price at 54,69 EUR/kg for 913 kg was registered in December 2020.

In **Spain** in January 2022, the average first-sales price of blue and red shrimp (42,50 EUR/kg) decreased by 6% compared with January 2021 and increased by 49% compared to 2020. During the past 36 months, average price ranged from 24,92 EUR/kg for 119 tonnes in May 2020, to 62,86 EUR/kg for 40 tonnes in December 2020.

²⁴ Weighted average price.

2. Extra-EU imports

The weekly extra-EU import prices (weighted average values per week, in EUR per kg) for nine different species are examined every month. The three most relevant species in terms of value and volume remain consistent: fresh whole Atlantic salmon from Norway, frozen Alaska pollock fillets from China, and frozen tropical shrimp (*Penaeus* spp.) from Ecuador. The other six species change each month; three are chosen from the commodity group of the month, and three are randomly selected. The commodity group for this month is "crustaceans", and the featured species are frozen lobsters from Canada, frozen Norway lobsters from Iceland, and prepared or preserved shrimps and prawns from Greenland. The three randomly selected species this month are frozen cuttlefish from Morocco, frozen Atlantic salmon and Danube salmon from Chile, and prepared or preserved tunas, skipjack or other fish of the genus *Euthynnus* from Thailand.

Table 17. EVOLUTION OF WEEKLY PRICE AND VOLUME OF THE THREE MOST RELEVANT FISHERIES AND AQUACULTURE PRODUCTS IMPORTED INTO THE EU

Extra-EU Imports		Week 10/2022	Preceding 4- week average	Week 10/2021	Notes
Fresh whole Atlantic salmon imported from Norway (Salmo salar,	Price (EUR/kg)	7,58	8,12 (–7%)	6,00 (+26%)	Since week 1 of 2022, prices have had an upward trend, and over the past three years have exhibited a stable trend, with seasonal fluctuations. Prices ranged from 4,32 (week 44 of 2020) to 8,40 EUR/kg (week 7 of 2022).
CN code 03021400)	Volume (tonnes)	11.861	11.616 (+5%)	10.848 (+9%)	Volumes ranged from 6.189 (week 13 of 2021) to 19.435 tonnes (week 50 of 2020) and had an upward trend in the past three years. Since week 1 of 2022, weekly volumes showed a downward trend.
Frozen Alaska pollock fillets imported from China (Theragra chalcogramma, CN code 03047500)	Price (EUR/kg)	3,31	3,15 (+5%)	2,51 (+32%)	Over the past three years, weekly prices showed an upward trend, as well as since the beginning of 2022, when they rose above 3,00 EUR/kg. Prices ranged from 2,26 (week 52 of 2020) to 3,31 EUR/kg (week 10 of 2022).
	Volume (tonnes)	1.178	2.110 (–44%)	2.921 (<mark>-60%</mark>)	Weekly volumes fluctuated from 345 (week 52 of 2019) to 5.433 tonnes (week 01 of 2020) over the past three years, and exhibited an overall downward trend, in line with the trend in 2022.
Frozen tropical shrimp imported from Ecuador (genus <i>Penaeus</i> , CN code 03061792)	Price (EUR/kg)	6,03*	5,91** (+2%)	4,79*** (+26%)	Weekly prices saw a downward trend in 2022, and a stable trend over the past three years. Prices ranged from 4,27 (week 38 of 2020) to 6,56 EUR/kg (week 49 of 2021).
	Volume (tonnes)	2.812*	2.119** (+33%)	3.919*** (–28%)	Downward trend in 2022, in contrast with the trend over the past three years. Weekly volumes fluctuated from 713 (week 6 of 2020) to 4.925 tonnes (week 33 of 2021).

*Data refers to week 09 of 2022 (the most recent available); **Data refers to weeks 05 to 08 of 2022; ***Data refers to week 09 of 2021.





Figure 32. IMPORT PRICE OF FROZEN ALASKA POLLOCK FILLETS FROM CHINA, 2019 - 2022



Source: European Commission (updated 20.03.2022).





Source: European Commission (updated 20.03.2022).

Table 18. EVOLUTION OF WEEKLY PRICE AND VOLUME OF THIS MONTH'S THREE FEATURED COMMODITY **PRODUCTS IMPORTED INTO THE EU**

Extra-EU Imports		Week 10/2022	Preceding 4- week average	Week 10/2021	Notes
Frozen lobsters even smoked, whether in shell or not, incl. lobsters in	Price (EUR/kg)	1,61	25,00 (– <mark>94%</mark>)	n/a ²⁵	Downward trend over the past three years. Prices fluctuated from 1,11 (week 19 of 2021) to 66,92 EUR/kg (week 13 of 2020). Most price spikes correlated with drop in supply from previous week.
or by boiling in water (excl whole) imported from Canada (<i>Homarus</i> spp., CN code 03061290)	Volume (tonnes)	0,4	17 (–97%)	n/a ²⁶	Upward trend over the past three years. High fluctuations in supply from 3 kg (week 15 of 2020) to 86 tonnes (week 4 of 2020). 68% of the weekly supply was less than 20 tonnes.
Frozen Norway lobsters even smoked, whether in shell or not includesters	Price (EUR/kg)	88,57*	n/a ²⁸	n/a ²⁹	Downward trend over the past three years. Prices ranged from 1,10 (week 12 of 2021) to 88,57 EUR/kg (week 09 of 2022).
shell or not, incl. lobsters in shell, cooked by steaming or by boiling in water imported from Iceland ²⁷ (<i>Nephrops</i> <i>norvegicus</i> , CN code 03061500)	Volume (tonnes)	0,03*	n/a ³⁰	n/a ³¹	Downward trend over the past three years. High fluctuations in supply, from 9 kg (week 35 of 2020) to 30 tonnes (week 26 of 2019).
Shrimps and prawns, prepared or preserved, in airtight containers (excl. smoked) imported from Greenland (CN code 16052900)	Price (EUR/kg)	7,47	6,64 (+13%)	5,35 (+40%)	Downward trend from 2019 to 2022, with prices ranging from 2,53 (week 23 of 2019) to 9,65 EUR/kg (week 02 of 2020). About half of the weekly prices range between 6,00 and 7,00 EUR/kg.
	Volume (tonnes)	285	285 (0%)	40 (+611%)	Downward trend from 2019 to 2022. Supply ranged from 2 (week 16 of 2021) to 4.759 tonnes (week 23 of 2019); most volumes (63%) were less than 500 tonnes.

Source: European Commission (updated 20.03.2022). *Data refers to week 09 of 2022 (the most recent available).

Figure 34. IMPORT PRICE OF FROZEN LOBSTER "HOMARUS SPP." FROM CANADA, 2019 - 2022



Source: European Commission (updated 20.03.2022).

²⁵ There were no sales recorded for the week 10 of 2021.

²⁶ Ibidem.

²⁷ The majority of data is missing; trends are estimated on the available data (45%). ²⁸ There were no sales recorded for the 4 preceding weeks.

²⁹ Ibidem.

³⁰ Ibidem.

³¹ Ibidem.



Figure 35. IMPORT PRICE OF FROZEN NORWAY LOBSTERS FROM ICELAND 2019 - 2022

Figure 36. IMPORT PRICE OF PREPARED OR PRESERVED SHRIMPS AND PRAWNS FROM GREENLAND, 2019 - 2022



Source: European Commission (updated 20.03.2022).

Since the beginning of 2022, the price of frozen lobster from Canada showed a downward trend. At the same time, volume showed an upward trend. Price ranged from 1,48 to 55,59 EUR/kg, and volume from 0,4 to 31 tonnes.

There are not enough data in 2022 to analyse the trends of price and volume of frozen Norway lobsters from Iceland.

Since the beginning of 2022, the price of prepared or preserved shrimps and prawns from Greenland showed an upward trend. At the same time, volume showed an opposite trend. Price ranged from 5,72 to 7,61 EUR/kg, and volume from 91 to 555 tonnes.

Table 19. EVOLUTION OF WEEKLY PRICE AND VOLUME OF EU IMPORTS OF OTHER THREE FISHERIES AND AQUACULTURE PRODUCTS RELEVANT TO THE EU MARKET

Extra-EU Import	5	Week 10/2022	Preceding 4- week average	Week 10/2021	Notes
Frozen cuttlefish, with or without shell, imported from Morocco (Sepia officinalis, Rossia macrosoma, CN code 03074329)	Price (EUR/kg)	5,12*	4,87** (+5%)	3,67** (+39%)	Stable trend from 2019 to 2022. Prices fluctuated from 2,83 (week 3 of 2021) to 6,22 EUR/kg (week 49 of 2021). 49% of the weekly prices were from 4,00 EUR/kg to 5,00 EUR/kg.
	Volume (tonnes)	804*	545** (+48%)	848** (–5%)	High fluctuations in supply, varying between 71 (week 19 of 2020) and 1.202 tonnes (week 20 of 2021). Overall upward trend.
Frozen Atlantic salmon and Danube salmon imported from Chile (<i>Salmo</i>	Price (EUR/kg)	5,70	6,14 (–7%)	4,18 (+37%)	Stable trend over the past three years. Price fluctuations, varying from 1,80 (week 26 of 2020) to 6,57 EUR/kg (week 39 of 2021). 66% of the weekly prices were between 3,00 and 5,00 EUR/kg
<i>salar, Hucho hucho,</i> CN code 03031300)	Volume (tonnes)	12	77 (– <mark>85%</mark>)	58 (<mark>-80%</mark>)	Downward trend over the past three years. High fluctuations in supply from 5 (week 12 of 2021) to 497 tonnes (week 11 of 2020).
Prepared or preserved tunas, skipjack or other fish of genus <i>Euthynnus</i> (excl. whole or in pieces) imported from Thailand (CN code 16042070)	Price (EUR/kg)	3,63	3,66 (–1%)	3,48 (+4%)	Stable trend from 2019 to 2022, with prices fluctuating from 1,58 (week 13 of 2019) to 7,20 EUR/kg (week 04 of 2020). 51% of the weekly price were from 3,00 to 4,00 EUR/kg.
	Volume (tonnes)	29	98 (–70%)	14(+109%)	From 2019 to 2022 volumes fluctuated from 9 kg (week 35 of 2020, and week 04 of 2021) to 2.314 tonnes (week 01 of 2020), with a slight downward trend.

*Data refers to week 09 of 2022 (the most recent available);** Data refers to weeks 05 to 08 of 2022;***Data refers to week 09 of 2021.

Figure 37. IMPORT PRICE OF FROZEN CUTTLEFISH FROM MOROCCO, 2019 - 2022



Source: European Commission (updated 20.03.2022)



Figure 38. IMPORT PRICE OF FROZEN ATLANTIC SALMON AND DANUBE SALMON FROM CHILE, 2019 - 2022





Source: European Commission (updated 20.03.2022).

Both the price and volume of frozen cuttlefish, with or without shell, from Morocco have exhibited an upward trend in 2022. Price ranged from 4,58 to 5,18 EUR/kg and weekly supply from 224 to 804 tonnes.

Since the beginning of the year, the price of frozen Atlantic salmon and Danube salmon from Chile had a downward trend. At the same time, supply had an upward trend. Price ranged from 5,70 to 6,55 EUR/kg and supply from 12 to 150 tonnes.

In 2022, the price of prepared or preserved tunas, skipjack, or other fish of genus *Euthynnus* from Thailand exhibited an upward trend, while volume showed a downward trend. Price ranged from 2,62 to 4,22 EUR/kg and supply from 9 to 258 tonnes.

3. Consumption

Data analysed in the section "Consumption" are extracted from EUMOFA, as collected from Europanel³².

In January 2022 compared with January 2021, household consumption of fresh fisheries and aquaculture products increased in both volume and value only in the Netherlands (+2%, and +5%, respectively). In Denmark and Poland, volume decreased but value remained stable. In the rest of the countries analysed, consumption decreased. The increase in the Netherlands was due mainly to cod (+7% in volume, +20% in value) and salmon (+13% in volume, +7% value). In Sweden, the main contributors to the observed decrease were salmon (-41% in volume, -34% in value) and herring (-70% in volume, -65% in value). In Germany and France, cod (-28% in volume and -29% in value for Germany and -23% in volume and -19% in value for France) and salmon (-24% in volume and -20% in value for Germany and -26% in volume and -19% in value for France) contributed to the consumption decrease. Cod was also the main contributor to the decrease in Ireland (-31% in volume and -41% value).

Country	Per capita consumption 2019* (live weight	January 2020		January	January 2021		December 2021		January 2022		Change from January 2021 to January 2022	
country	equivalent, LWE) kg/capita/year	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value	
Denmark	42,56	1.145	17,77	1.195	18,59	1.206	22,94	1.139	18,66	5%	0%	
France	33, 26	14.629	182,37	17.164	215,37	26.243	326,87	14.686	188,76	14%	12%	
Germany	13,08	6.282	92,12	8.662	118,56	9.871	131,04	6.465	93,33	25%	21%	
Hungary	6,28	402	2,24	373	2,37	1.980	11,66	270	1,90	28%	20%	
Ireland	25,50	1.214	19,32	1.002	22,40	882	13,43	957	15,17	4%	32%	
Italy	31,21	22.414	242,23	26.954	295,59	41.975	494,33	25.014	283,66	7%	4%	
Netherlands	20,60	2.354	38,55	2.659	44,17	4.070	78,45	2.705	46,26	2%	5%	
Poland	13,11	3.405	22,55	3.855	26,71	10.652	72,82	3.449	26,60	11%	0%	
Portugal	59,91	5.180	35,34	6.422	42,61	6.476	54,60	5.348	38,56	17%	10%	
Spain	46,02	44.557	383,18	48.500	435,02	55.558	538,81	42.530	392,53	12%	10%	
Sweden	25,16	522	7,40	930	11,96	1.134	15,15	621	8,87	33%	26%	

Table 20. JANUARY OVERVIEW OF THE REPORTING COUNTRIES (volume in tonnes and value in million EUR)

*Data on per capita consumption of all fish and seafood products for all EU Member States can be found at:

https://www.eumofa.eu/documents/20178/477018/EN_The+EU+fish+market_2021.pdf/

Over the past three years, the average household consumption of fresh fisheries and aquaculture products in January in terms of both volume and value has been below the annual average in most of the Member States analysed, apart from the Netherlands where it was above the average. In Denmark and Poland, only value remained at the annual average level.

The most recent weekly consumption data (up to **week 17 of 2022**) are available on the EUMOFA website and can be accessed **here**.

Overview | 1. First sales in Europe | 2. Extra-EU imports | 3. Consumption | 4. Covid-19 impact of farmed species | 5. Fisheries and aquaculture in Bangladesh | 6. Global highlights | 7. Macroeconomic context

³² Last update: 16.03.2022.

3.1. Fresh salmon

Habitat: Highly migratory species from the family *Salmonidae*, undertaking significant physiological changes during transitions of habitats from freshwater rivers to coastal waters, and back to freshwater rivers to spawn³³.

Catch area: North Atlantic on both the American and European sides, distributed from Cape Cod and Portugal in the south to Labrador and Russia in the north. It is also found around the North Atlantic islands, e.g. around the UK, Iceland, and Greenland, and in the Baltic³⁴.

Aquaculture production areas: Norway, the UK, Faroe Islands, Ireland, Iceland.

Production method: Mostly farmed, but also caught.

Main producing countries of wild salmon in Europe: Norway, Iceland, the UK, Ireland.

Main consumers in the EU: France, Germany, Italy, Spain, Poland.

Presentation: Whole, fillets, steak.

Preservation: Fresh, frozen, hot and cold smoked, canned.

3.1.1. Overview of household consumption in Germany, France, and Spain

According to EUMOFA estimates, salmon is the second most consumed species in the EU after tuna. In 2019, per capita apparent consumption³⁵ of salmon was estimated at 2,36 kg LWE, an increase of 5% compared to 2018. Nearly 81% of the consumed salmon on the EU market is farmed, and the remainder is wild caught.

Spain and France are among the EU Member States with the highest annual per capita apparent consumption of fisheries and aquaculture products. In Spain this amounted to 46,02 kg, the second highest in the EU in 2019. This was 92% higher than the EU average (23,97 kg LWE). Compared to 2018, the trend remained stable.

In France, the per capita apparent consumption of fisheries and aquaculture products was 33,26 kg, 28% lower compared to Spain. Consumption decreased by 0,5% compared to the previous year. Compared to the EU average, it was 39% higher.

German per capita apparent consumption of fisheries and aquaculture products is among the lowest in the EU. In 2019, it was 13,08 kg, 45% lower that the EU average. It decreased by 10% compared to 2018.

Over the past three years (February 2019 – January 2022), the average Spanish household consumption of salmon was 5.273 tonnes, more than two times higher than the average household consumption in Germany and France. French consumers spent on average 16,86 EUR per month for a kilogram of salmon, whereas consumers in Germany spent 7% less, or 16,86 EUR on average. Consumers in Spain spent the least among the three countries analysed, at 10,09 EUR on average.

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³³ https://www.eumofa.eu/documents/20178/110994/MH+2+2018.pdf

³⁴ https://www.eumofa.eu/documents/20178/110994/MH+2+2018.pdf

³⁵ "Apparent consumption" is calculated by using the supply balance sheet that provides an estimate of the supply of fisheries and aquaculture products available for human consumption at EU level. The calculation of the supply balance sheet is based on the equation: Apparent consumption = [(total catches – industrial catches) + aquaculture + imports] – exports. Catches targeted for fishmeal (industrial catches) are excluded. Non-food use products are also excluded from imports and exports. It is worth underlining that the methodologies for estimating apparent consumption at EU and Member State levels are different, the first based on data and estimates as described in the Methodological background, and the latter also requiring the adjustment of abnormal trends due to the higher impact of stock changes.

We have covered **salmon** in previous *Monthly Highlights*:

First Sales: Denmark 9/2021, 5/2019; Poland 9/2021, 5/2019; Sweden 9/2021, 5/2019.

Consumption: Belgium 1/2014; Denmark 6/2019; Estonia 1/2014; Finland 1/2015, 1/2014; France 3&2016, 8/2015; Germany 6/2019, 3/2016; Italy 3/2016, 8/2015, 1/2014; Latvia 3/2016, 1/2015; Lithuania 3/2016, 1/2015; the Netherlands 6/2019, 1/2014; Portugal 1/2014.

Extra-EU Imports: Norway 1/2018 - 3/2022; United States 1/2022, 9/2021, 9/2019, 5/2019, 7/2018, 3/2018; Chile 4/2021.

Topic of the month: Atlantic salmon 10/2021, Salmon in Europe 2/2018, Smoked salmon in France 2/2016, Farmed salmon in France Oct 2013.



Figure 40. PRICES OF SALMON PURCHASED BY GERMAN, FRENCH, AND SPANISH HOUSEHOLDS

Figure 41. HOUSEHOLD PURCHASES OF SALMON IN GERMANY, FRANCE, AND SPAIN



Overview | 1. First sales in Europe | 2. Extra-EU imports | 3. Consumption | 4. Covid-19 impact of farmed species | 5. Fisheries and aquaculture in Bangladesh | 6. Global highlights | 7. Macroeconomic context

3.1.2. Household consumption trends in Germany

Long-term trend (February 2019 to January 2022): Downward trend in price and upward trend in volume.
Yearly average price: 18,16 EUR/kg (2019), 17,02 EUR/kg (2020), 16,02 EUR/kg (2021).
Yearly consumption: 20.821 tonnes (2019), 27.285 tonnes (2020), 27.792 tonnes (2021).
Short-term trend (January 2022): Upward trend in price and downward trend in volume.
Price: 16,86 EUR/kg.
Consumption: 1.849 tonnes.

Figure 42. RETAIL PRICE AND VOLUME OF SALMON PURCHASED BY HOUSEHOLDS IN GERMANY, FEBRUARY 2019 – JANUARY 2022



3.1.3. Household consumption trends in France

Long-term trend (February 2019 to January 2022): Downward trend in price and upward trend in volume.
Yearly average price: 20,28 EUR/kg (2019), 18,13 EUR/kg (2020), 17,44 EUR/kg (2021).
Yearly consumption: 24.242 tonnes (2019), 30.794 tonnes (2020), 34.342 tonnes (2021).
Short-term trend (January 2022): Upward trend in price and downward trend in volume.
Price: 19,13 EUR/kg.
Consumption: 2.280 tonnes.

Figure 43. RETAIL PRICE AND VOLUME OF SALMON PURCHASED BY HOUSEHOLDS IN FRANCE, FEBRUARY 2019 – JANUARY 2022



Overview | 1. First sales in Europe | 2. Extra-EU imports | 3. Consumption

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3.1.4. Household consumption trends in Spain

Long-term trend (February 2019 to January 2022): Downward trend in price and upward trend in volume.
Yearly average price: 10,29 EUR/kg (2019), 10,08 EUR/kg (2020), 9,85 EUR/kg (2021).
Yearly consumption: 53.126 tonnes (2019), 67.868 tonnes (2020), 68.449 tonnes (2021).
Short-term trend (January 2022): Upward trend in price and downward trend in volume.
Price: 11,22 EUR/kg.
Consumption: 4.789 tonnes.

Figure 44. RETAIL PRICE AND VOLUME OF SALMON PURCHASED BY HOUSEHOLDS IN SPAIN, FEBRUARY 2019 – JANUARY 2022



4. Case study: COVID-19 impact of farmed species

4.1. Main Findings

This case study presents an overview of the findings from the recently published EUMOFA report <u>COVID-19 impact on farmed species</u>, <u>focus on turbot and caviar (2022)</u>. For more details about the aspects covered in this case study, <u>visit the original study</u>.

The study aims to assess the impact of the COVID-19 pandemic on the turbot and caviar market, and stakeholders' courses of action in dealing with the consequences. The farmed turbot market, which mostly targets the HoReCa and export markets, was strongly impacted in the first months of the outbreak in 2020. However, most of the main producers in Spain almost completely shifted to the retail market in a few months, which mitigated the impacts despite lower prices. Overall, 2020 saw lower exports and imports of caviar. The sharpest decline in trade was seen at the initial impact of the pandemic, during March and April 2020, partly due to logistical problems and decline in demand. Increased retail and online sales, and marketing toward domestic consumers, mitigated some negative effects following the closure of the traditional HoReCa market outlet.

4.2. Focus on Turbot

Turbot (*Psetta maxima*, formerly known as *Scophtalmus maximus*) is a benthic marine species which lives on sandy and occasionally muddy bottoms, from shallow waters of approximately 20 m to a depth of 80 m³⁶. In the wild, the geographic distribution is the Northeast Atlantic, throughout the Mediterranean, and along the European coasts to the Arctic Circle in Norway and Iceland. Wild turbot can also be found in most of the Baltic Sea. A subspecies, *Psetta maxima maeotica*, is reported in the Black Sea.

Turbot aquaculture commenced in the 1970s in Scotland, France, and Spain. Production expanded quickly after 1985 in Spain and Portugal with technological developments in juvenile rearing. The industry encountered a crisis in 1992, as production almost doubled in a year to reach 1.622 tonnes, but without sufficient demand to meet it. Small farms suffered from high production costs and an underdeveloped commercial marketing network. The subsequent restructuration brought a growth of production and an expansion of the number of farming countries: Spain, Portugal, the Netherlands, Denmark, Germany, Iceland, Italy, Norway, Wales (the UK), France, Romania, and



Source: Shutterstock, photo by Shvaygert Ekaterina

Croatia. The natural distribution of the turbot includes coastal waters of all these countries. Turbot has also been introduced to other regions (notably Chile in the late 1980s) and, more recently, China, where turbot aquaculture has increased dramatically since 2003. Spain, which was historically the major producer worldwide, has since been significantly overtaken by Chinese production of farmed turbot.

In all EU markets, turbot is a product particularly destined to be consumed in restaurants. However, turbot market features and consumption habits vary throughout the Member States. Farmed turbot may be sold fresh, frozen, or live (to a much lesser extent). Most frequently, harvested turbots are placed into containers filled with ice and seawater for transport to processing units, and packed in polystyrene boxes, covered with a layer of ice and plastic film³⁷. Turbot is traditionally marketed as fresh. There is also a small market for live turbot, mostly to supply restaurants in Asian markets through long distance exports.

Production of Turbot

In 2019, FAO reported a global aquaculture production of turbot of 77.710 tonnes (+10% since 2018), with a total value of 530 million USD (around EUR 466 million). Combining FAO data for third countries, EUMOFA data for European countries, and Federation of European Aquaculture Producers (FEAP) data for France in 2018-2019, we obtained a slightly different total production of 78.058 tonnes. World production has increased rapidly in the last decade but stabilised with a slight decrease over the last 10 years. However, production in 2019 was still 11% higher than in 2010.

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³⁶ https://www.fao.org/fishery/culturedspecies/Psetta_maxima/en

³⁷ https://www.fao.org/fishery/docs/CDrom/aquaculture/I1129m/file/en/en_turbot.htm

In 2019, there were only 5 producers of farmed turbot: China, Spain, Portugal, France, and the Netherlands³⁸. China is by far the largest producer with around 85% of farmed volumes in 2019 (66.300 tonnes), followed by Spain with 8.011 tonnes (10% of the volumes). Chinese production has increased thirteenfold since 2000.

EU production of farmed turbot reached 11.757 tonnes in 2019. Most of this volume was produced in Spain (68%) and Portugal (30%). Over the past decade, French production decreased strongly (-84%) whereas Dutch production has stayed relatively stable.

Table 21. PRC	Table 21. PRODUCTION OF FARMED TURBOT IN THE EU IN 2010-2019 (volume in tonnes)										
Country	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Spain	6.882	7.337	7.758	6.900	7.767	7.464	7.306	8.771	7.858	8.011	
Portugal	2.424	3.197	4.406	2.353	3.588	2.302	2.388	2.745	2.663	3.580	
The Netherlands	250	260	180	100	100	100	100	100	-	100	
France	394	300	250	255	279	300	300	300	116	65	
Croatia	-	-	-	-	1	7	1	-	-	-	
Denmark	6	5	2	7	-	-	-	-	-	-	
Romania	-	-	-	-	16	20	20	-	-	-	
Total*	9.956	11.099	12.596	9.615	11.750	10.193	10.116	11.917	10.637	11.757	

*Due to rounding there may be small variations between the totals and the sum of data.

Source: EUMOFA/Eurostat/FAO, FEAP.

Aquaculture production data on turbot for 2020 is only available for Spain. Spanish volumes of farmed turbot (at fattening stage, for commercial destination) were down by 13% compared to 2019, while the production value decreased by 27% in the same period. According to stakeholders, COVID-19 had limited impact on production itself, as turbot product cycles are long and could not be interrupted or extended due to technical constraints such as density or the level of oxygen. According to the national aquaculture association APROMAR, the fish harvest schedule during the COVID-19 period was maintained, and turbot that could not be sold were likely frozen immediately. In addition, the association commented that the COVID-19 crisis occurred in the spring, which is not the peak production period, as the fish mature in the summer when demand is highest, and between October and January. One Spanish turbot farmer reported being hit hard by the widespread shutdown of restaurants and hotels. The company planned to reduce feed to slow biomass growth and, in case of overstock, harvest the poor growers and freeze part of the stock. In week 20 (11-17 May 2020), turbot prices increased.

In France, the turbot sector is suffering a severe economic crisis. The leading company, France Turbot Ichtus (FTI), belonging to the Gloria Maris Group, announced the temporary stoppage of its turbot production activities (juveniles and fattening) in July 2021³⁹. The situation is due to two successive events. In February 2019, a power surge interrupted the water circulation systems in the ponds, causing the death of nearly all the livestock. This was followed by the COVID-19 crisis in March 2020 which forced the closure of restaurants and international export markets, which accounted for 90% of FTI's sales revenue. The company was not able to sell its production with the same upgrading level.

Wholesale

Detailed analysis of weekly turbot auction sales in the Madrid wholesale market⁴⁰ show that in April 2020, low demand and market prices were a challenge for farmers targeting the HoReCa segment. Fish species typically consumed out of the home were still not in demand on the Spanish market as restaurants were still closed. The prices of wild turbot dropped significantly over the previous two weeks (27 April-10 May 2020) against higher sales quantity. Despite prices of farmed turbot during that period trending at a historically low level, sales remained stable – on the same level as in the previous two years. Prices for turbot were reported stable in weeks 21 and 23, and increasing in weeks 24-25.

EU Trade

Spain is the largest EU exporter of turbot both in volume and value, making up 46% of total EU export volume and 42% of total EU export value in 2020. Portugal exported 32% of the total EU volume and covered 30% of the value. The Netherlands covered 20% of total EU exports in volume and 25% in value, however, most of the Dutch exports comprised wild-caught turbot since it is the main EU fishing country for this species. France exported 2% of the total EU volume, covering 3% of exports value (a significant share of

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³⁸ There is also some production of turbot in Norway, but exact numbers are unavailable

³⁹ Source: communication with the operator

⁴⁰ EUMOFA, 2020, Coronavirus response - EUMOFA's weekly data and trends analysis, Bulletin collection

these exports were also likely to comprise wild-caught fish). In 2020, turbot exports were dominated by live or fresh products, which accounted for 87% of export volume, and frozen turbot, which covered 13% of export volume.

In 2020, the highest unit price was achieved by France at 17,18 EUR/kg, which was nevertheless a 20% decrease from 21,48 EUR/kg in 2019. The Netherlands had the second highest unit price in 2020 with 10,22 EUR/kg, an 8% decrease from 11,14 EUR/kg in 2019. Portugal and Spain achieved near-similar unit prices of 7,30 EUR/kg and 7,13 EUR/kg, a decrease of 7% and 25% respectively since 2019.

A clear seasonality can be seen in the exports, with peak periods in summer and December. This trend largely reflects the seasonality of demand, which is particularly high during the touristic and Christmas seasons.

Table 22. TOTAL EXPORTS OF TURBOT* FROM MAJOR PRODUCING EU COUNTRIES (volume in tonnes, value in eur 1.000)

	2017		2018		201	19	2020	
Country	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Spain	4.996	40.994	4.664	45.578	4.900	46.423	4.714	33.604
Portugal	2.411	16.720	2.647	21.850	3.233	25.477	3.285	23.972
The Netherlands	2.166	24.907	1.825	22.018	1.820	20.268	2.006	20.509
France	349	5.600	297	6.302	257	5.523	159	2.735
Total**	9.922	88.222	9.432	95.749	10.210	97.690	10.164	80.821

* Includes all product types, whether farmed or wild-caught, and whether live or fresh or frozen.

** Due to rounding there may be small variations between the totals and the sum of data.

Source: EUMOFA elaboration on EUROSTAT-COMEXT.

The peak season for exports, which usually occurs between May to September, and in December, reached higher peaks in 2020 compared with previous years. Exceptionally high volumes were recorded in October. The dynamic exports reported from June 2020 onwards offset the sharp drop in volumes from March, April, and May. Overall, the total export volumes from the main EU producing countries (ES, PT, FR, and NL) in 2020 were only 0,5% down compared to 2019, and 7,8% higher than in 2018.

Live or fresh turbot products achieved the highest unit price of 8,80 EUR/kg, a 10% decrease from the price of 9,77 EUR/kg in 2019. Frozen turbot experienced an even sharper decrease of 62% in unit price, achieving 2,44 of EUR/kg in 2020, while the price was 6,36 EUR/kg in 2019 and 6,79 EUR/kg in 2018. According to an interview with APROMAR⁴¹, the extremely low value of Spanish frozen turbot exports was questionable and may suggest statistical error. Indeed, according to the Association, once the fish is frozen, fish farmers would rather hold on to it and sell it progressively than sell it immediately if there is not sufficient demand.

Marketing and Consumption

In Spain, turbot is increasingly purchased for at-home consumption through large scale retailers, supermarkets, or fishmongers. Supermarkets mostly sell farmed turbot, as supply is more stable in terms of both quality and volume, and therefore the product is considered better value for money. In France and the Netherlands, turbot is mainly consumed out-of-home. The foodservice sector is supplied with turbot through specialised wholesalers and cash-and-carry, but Dutch restaurants may also purchase it directly from the farm. Consumption in France and the Netherlands relies to a larger extent on the fishery. In France, turbot is typically sold as whole fish to restaurants (gutted or not) and then prepared in the restaurant. It is considered a premium species, following a product segmentation with higher prices targeted by national production (compared to imported turbots) and wild catches (compared to farmed turbot).

According to an interview with APROMAR, the turbot sector was specifically impacted during the first months of the COVID-19 crisis, because turbot was mainly marketed through the HoReCa channel. The activity recovered more slowly than other sectors, but two well-established main producing companies managed to completely switch to the retail market in only a few months. At the time that this report was written, a significant part of turbot was still sold through retail despite lower sale prices, as the HoReCa sector was still impacted by the low level of tourism activities.

Although in 2016, data and feedback from retailers indicated that the market for turbot could have reached maturity, and consumption remained steady between 2017 to 2019, the year 2020 recorded a different pattern. Consumption volume of turbot significantly increased (+55%) while average prices decreased by 5%. According to APROMAR, the increase in household consumption

⁴¹ Asociación Empresarial de Acuicultura de España, or Spanish Aquaculture Business Association.

is likely explained by a substantial shift in turbot volumes from the HoReCa market to the retail sector, as HoReCa traditionally accounted for most of the turbot market in Spain.

The pandemic disrupted the supply chain, tested the robustness of the sector, and forced innovation. Spanish and French producers found successful new ways to market and sell their products, including production of prepacked products and a shift to the retail sector. This reorientation strategy seems to be confirmed by the increase in turbot domestic consumption in Spain in 2020 (+55% in volumes). In France, however, the small unique farm has been forced to suspend all its turbot aquaculture activities since July 2021, due to a financial crisis and a lack of commercial outlets.

4.3. Caviar⁴²

Production

Caviar is the roe from sturgeons. Historically, sturgeons were harvested in the Caspian Sea and their roe sold as caviar, mainly by Russia and Iran. The most well-known and highly prized caviars are Beluga from the Beluga sturgeon (Huso huso), Osetra from the Danube sturgeon (Acipenser gueldenstaedtii)⁴³, and Sevruga from the starry sturgeon (Acipenser stellatus). All species originate in Eurasia, primarily in the Caspian Sea, the Black Sea, and connected rivers. While these three species are the most well-known, most of the caviar on the market today is from several other sturgeon species. More common varieties are from the white sturgeon (Acipenser transmontanus), or the shortnose sturgeon (Acipenser brevirostrum), with more highly prized caviar originating from Siberian sturgeon (Acipenser baerii) and the beluga-like kaluga sturgeon (Huso dauricus).

Caviars differ in qualities and price, determined by factors such as pearl size, texture, colour, lucidity, uniformity, separation, fragrance, firmness, taste, and maturity.



Source: Shutterstock, photo by Valentyn Volkov.

Overfishing of sturgeon has almost led to the extinction of several of these species. Since 1998, international trade in all sturgeon species and related products has been regulated under CITES⁴⁴. As sturgeon fishing is heavily regulated, most caviar today is produced from the aquaculture of sturgeons. In 2019, the world aquaculture production of sturgeon was approximately 120.750 tonnes⁴⁵.

Over the past 20 years, there has been a steep growth in aquaculture production of sturgeons, mainly driven by China. According to FAO, global sturgeon production was 4.100 tonnes in 2002, half of which took place in Russia and the remainder in the EU. In 2003, world production more than tripled when China reported a production of over 9.000 tonnes. Since then, Chinese production has increased by tenfold to over 102.000 tonnes in 2019. In 2019, China accounted for 85% of global sturgeon production, followed by Russia at 3% (4.021 tonnes), and Armenia at 3% (4.000 tonnes). Exploiting sturgeons for caviar production is costly because it takes many years for female sturgeons to reproduce, and then to select females for caviar production.

According to FEAP, EU Member States produced 164 tonnes of caviar in 2018, an increase of 12% from 145,8 tonnes in the year before, and a 55% increase from 106 tonnes in 2015 when FEAP first started recording production volumes. The largest producers were Italy, France, Poland, and Germany, accounting for 84% of total production in 2018. The global production of caviar in 2018 has been estimated at 380 tonnes⁴⁶. There are currently no estimations for caviar production for 2019, 2020, and 2021, making quantitative analysis of the COVID-19 impact on production impossible.

As there is no production data available for 2020, it is unclear how production was affected, but several stakeholders report postponing their spring harvest.

⁴² More details about caviar can be found in the EUMOFA report The Caviar Market (2021), available at https://www.eumofa.eu/documents/20178/449260/2021+-+Caviar+Market.pdf/04e7de02-bdc8-d0e2-96cb-59c730436b78?t=1620208745691

⁴³ Also known as the Russian sturgeon

⁴⁴ The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is an international agreement between governments

aimed at ensuring that international trade in specimens of wild animals and plants does not threaten their survival. ⁴⁵ Note that FAO has updated their database adjusting quantities. Production numbers listed in the previous report are higher than the current reported numbers

⁴⁶ First World Caviar Forum, 7th May 2019.

EU Trade

In 2020, EU Member States exported a total of 33 tonnes of caviar at a value of roughly EUR 23 million to third countries. This is a decrease of 7% in volume and 4% in value as compared with 2019, but an increase of 10% and 11% respectively when compared with 2018. So far in 2021, EU Member States have exported 33 tonnes of caviar for 15 million EUR. This is an increase of 79% and 77% respectively compared to the same months in 2020, and an increase in volume of 37% and value of 34% compared to 2019.

In 2020 and 2019, France exported the highest volume of caviar. However, in other years, Italy exported the highest volumes, although at lower values than France. This trend seems to have resumed so far in 2021. Regarding prices, the highest prices were achieved by exports to Middle Eastern countries such as Oman, Saudi Arabia, Iraq, and Qatar, in addition to smaller countries such as Andorra and smaller island states.

Japan and the United States have since 2019 been the primary destination for EU caviar exports, both receiving 26% of the volume in 2019, 22%, and 27% respectively in 2020, and 17% and 39% respectively in 2021. The highest weighted average prices were achieved by exports to Oman, Saudi Arabia, and Andorra.

Table 23. EX	able 23. EXTRA-EU EXPORTS BY EXPORTER COUNTRY (volume in kg, value in EUR 1.000)											
	20	18	20	19	20	20	202	21*	% chang	e 19-20		
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value		
France	12.309	8.136	16.362	10.213	14.665	9.373	8.639	5.592	-10 %	-8 %		
Italy	14.786	5.872	14.400	5.784	13.718	5.526	9.611	3.435	-5 %	-4 %		
Germany	9.201	4.404	10.033	4.509	8.444	3.950	6.193	2.717	-16 %	-12 %		
Poland	5.710	1.151	8.499	1.819	6.071	1.477	4.320	1.017	-29 %	-19 %		
Netherlands	364	148	440	176	1.415	621	1.485	797	222 %	253 %		
Greece	0	0	381	143	1.423	505	1.103	375	273 %	252 %		
Other	2.721	1.185	3.716	1.585	4.068	1.705	2.108	1.204	9%	8 %		
Total**	45.091	20.896	53.831	24.229	49.804	23.157	33.459	15.136	-7 %	-4 %		

*Until July 2021.

** Due to rounding there may be small variations between the totals and the sum of data.

Source: EUROSTAT.

As seen in figure 45, exports from the EU dropped sharply from February to April in 2020. Comparing the volume for March and April to previous years, they were 46% lower than in 2019 and 52% lower than in 2018. Exports in March and April 2021 were 149% higher than in the previous year. Despite the overall decline in exported caviar, the exported volumes and values during November and December 2020 were higher than the previous two years.

Although the volume of exports decreased during the initial lockdown period (March-April 2020), the weighted average prices were 11% higher than in 2019 and 12% higher than in 2018. The reason for this partly seems to be very high export prices achieved by sales to India, St. Maarten, French Polynesia, Thailand, and Qatar. However, the volumes to these states were small. Additionally, less caviar from China was available on the global market, which is generally sold at lower prices, and as such could explain the increase in global prices.



Figure 45. EXTRA-EU EXPORTS BY VOLUME (kg, left) AND WEIGHTED AVERAGE PRICES (EUR/kg, right)

Source: EUROSTAT.

In 2020, EU Member States imported a total of 46 tonnes of caviar from third countries. This was 6% less than in 2019, but 29% more than in 2018. During the first six months of 2021, EU imports of caviar were 74% higher than in 2020 and 41% higher than in 2019 for the corresponding periods. Germany, France, and Belgium are the major caviar importing Member States covering 78%-89% of total EU imports in the years 2018-2021.



Figure 46. EXTRA-EU IMPORTS BY VOLUME (kg, left) AND WEIGHTED AVERAGE PRICES (EUR/kg, right)

Source: EUROSTAT.

International Trade

With the exception of a few minor exporters such as Ukraine, Switzerland, Denmark, and Bahrain, all caviar-exporting nations saw a decrease in export volume in 2020 compared with 2019. China is the largest exporter of caviar in the world. Since 2019, China's share of total export volumes rose from 83% in 2018 to 91% during the first six months of 2021. However, the average weighted price of exports from China were low, usually hovering around 200 EUR/kg. Chinese exports of caviar in 2020 were 12% lower than in 2019, and 5% lower than in 2018. During the first half of 2021, the export volume was 134% higher than the corresponding period in 2020.

COVID-19 resulted in a descrease of international orders. To compensate, efforts were made to promote Chinese-produced caviar to domestic customers. Stakeholders reported increasing domestic comsumption of Chinese-produced caviar, which offset some of the impact from reduced exports. However, production was still lower in 2020 than the previous year.

Chinese exports are primarily destined for the United States, Germany, and France. Together, these three destinations consist of between 60%-65% of the total exports since 2018. The United States is the largest destination for Chinese exports of caviar. In contrast to most other destinations, the volume exported to the US was 10% higher in 2020 than in 2019. However, during spring 2020 (March to May), total exports to the US were 36% lower than in the same period in 2019. Chinese exports to the second and third largest markets, Germany and France, completely stopped in April. Overall, China's caviar exports to Germany and France from March to May 2020 were lower than in 2019 by 73% and 92% respectively.

Normally, caviar is transported as belly freight on passenger planes in cool-boxes with synthetic ice, and must reach its destination within two days of travel. This caused some logistical problems for caviar exports as air transport was significantly reduced during the first wave of COVID-19 and may explain why exports to several markets stopped.

Marketing and Consumption

According to stakeholders, between 40% and 70% of the revenues from caviar sales are usually generated in December, prior to the Christmas season. As the lockdown periods began in late March and April, the effects did not immediately hit the caviar sector severely as the high season was over. Some stakeholders reported that they slowed the marketing of their product during the first wave of the pandemic, waiting for the winter high season.

Caviar has previously primarily been sold to the HoReCa and other "luxury" segments such as the airline industry. As traditional market outlets closed during lockdown periods, retail became an important outlet for producers. In addition, many producers appealed to domestic consumers to purchase caviar produced nationally. This strategy appears to have had some success.

Many producers of caviar innovated during the pandemic period, finding new ways to market and sell their products. Many solutions, particularly online shops, are likely to continue post-pandemic.

5. Case study: Fisheries and aquaculture in Bangladesh

Bangladesh, officially the People's Republic of Bangladesh, is a country in South Asia. It is the eighth most populous country in the world, with a population exceeding 167 million people in an area of 143.998 km², making it also one of the most densely populated countries in the world⁴⁷. Bangladesh is endowed with vast marine, brackish, and inland waters. It has a coastal area of 2,30 million hectares and a coastline of 710 km along the southern part of the country facing the Bay of Bengal. It also has a huge inland water resource, including small ponds, lakes, canals, small and large rivers, and estuaries covering about 4,34 million hectares⁴⁸.

Bangladesh is the third largest inland fishery producer in the world with a production exceeding 1,2 million tonnes in 2019. It is also the fifth largest aquaculture producer in the world, with a production of almost 2,5 million tonnes in the same year.

The contribution of fisheries and aquaculture to the national economy of Bangladesh is substantial, particularly regarding food consumption, employment, and export. In 2018-19, the fisheries and aquaculture sector contributed 3,5% of national GDP, 25,72% of agriculture GDP, and 11,5% of foreign exchange earnings⁴⁹. The sector's contribution to the national economy



Source: https://www.cartograf.fr/pays/bangladesh.php

goes beyond its share in national GDP, as it also provides approximately 60% of the population's animal protein intake and plays an important role in rural employment generation and poverty alleviation⁵⁰.

Bangladesh is a net exporter of seafood products in value terms, principally due to its mostly export-oriented shrimp farming sector. The EU is the principal destination of Bangladeshi exports, with 21.592 tonnes for a value of EUR 190 million imported into the EU in 2021, mostly frozen shrimps, and mostly entering the EU market via the Netherlands, Belgium, and Germany.

5.1. Fisheries and aquaculture production

Fisheries and aquaculture in Bangladesh are diverse, and there are approximately 260 freshwater and 475 marine fish species in the country. In addition, around 12 exotic species are being cultured in Bangladesh.

In 2019, total fisheries and aquaculture production reached 4,38 million tonnes, marking an increase of 44% in comparison to 2010. This increase is mainly attributed to the expansion of the aquaculture sector, which increased by 90% between 2010 and 2019.

There are three main production categories in Bangladesh: aquaculture is the most important in terms of production volume (57% of fisheries and aquaculture production in 2019), followed by inland fisheries (28%) and marine fisheries (15%).

⁴⁹ Department of Fisheries. Government of the People's Republic of Bangladesh.

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⁴⁷ https://www.worldometers.info/world-population/bangladesh-population/

⁴⁸ Fisheries and Aquaculture in Bangladesh: Challenges and Opportunities, 2014.

https://fisheries.portal.gov.bd/sites/default/files/files/fisheries.portal.gov.bd/page/4cfbb3cc_c0c4_4f25_be21_b91f84bdc45c/2020-10-20-11-57-

⁸df0b0e26d7d0134ea2c92ac6129702b.pdf ⁵⁰ Department of Fisheries. Government of the People's Republic of Bangladesh. http://fisheries.gov.bd/site/page/43ce3767-3981-4248-99bd-d321b6e3a7e5/-



Figure 47. CONTRIBUTION OF AQUACULTURE, INLAND FISHERIES, AND MARINE FISHERIES TO TOTAL PRODUCTION (volume in 1.000 tonnes)

Source: FAO Fishstat.

Inland fisheries

Inland fisheries in Bangladesh occurs in rivers, ponds, estuaries, beels and haors (types of wetlands), floodplains, and brackish waters. Bangladesh is a major inland fisheries producer worldwide. With a total inland production of over 1,2 million tonnes, Bangladesh is the world's third largest inland fish producing country after China and India, covering 9% of global inland production. The main species caught are major carps, followed by exotic carps (e.g. silver carp, common carp, mirror carp, and grass carp). Other important species are catfish, snakehead, hilsa, and prawn⁵¹. The hilsa (*Tenualosa ilisha*), a diadromous species caught both in inland and marine environments, is of high importance in South-East Asia, especially in Bangladesh where circa 533.000 tonnes are produced, accounting for 11% of the marine and inland fisheries production in Bangladesh in 2019. The Government has now introduced management measures in rivers to contain fisheries of hilsa, which migrate up rivers from the Bay of Bengal for breeding, such as the introduction of a short seasonal ban during the breeding season⁵².

						-		-		
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Freshwater fishes nei	869.615	884.933	784.932	822.472	822.363	836.878	853.847	888.136	916.304	929.872
Hilsa shad	115.179	114.520	114.475	98.648	127.514	135.396	140.756	217.469	232.698	242.479
Freshwater crustaceans nei	134.300	55.132	57.688	40.338	45.928	51.717	53.639	58.003	67.536	63.357
Others	-	-	-	-	430	400	600	-	-	-
Total	1.119.094	1.054.585	957.095	961.458	996.235	1.024.391	1.048.842	1.163.608	1.216.538	1.235.708

Table 24. INLAND CATCHES BY MAIN SPECIES IN BANGLADESH (volume in tonnes)

Source: FAO FishStat

Marine fisheries

Marine fisheries activities occur in the Bay of Bengal in the south of Bangladesh, within depths of 200 meters. The marine fishing fleet is composed of 67.924 vessels and includes the large trawler industrial fleet (255 vessels) as well as artisanal fisheries with mechanised and non-mechanised vessels (67.669 vessels)⁵³. The artisanal vessels are responsible for the largest share of marine production. In 2019, the marine fishery sector totalled circa 660.000 tonnes, contributing to about 15% to the country's total fishery and aquaculture production. Hilsa (*Tenualosa ilisha*) is the most important species, with 290.316 tonnes caught in 2019. Other important species are Bombay duck (*Harpadon nehereus*), pomfret (species group including *Pampus argenteus*, *Pampus chinensis*, *Parastromateus niger*), and jewfish (species group including *Jhonius argentatus*, *Johnieops vogler*, *Otolithoides pama*, etc.). Recently,

⁵¹ Production data provided by FAO Fish stat do not accurately provide the breakdown of inland production by species (a significant share of production is provided for

the category freshwater fish nei). A report on fisheries and aquaculture in Bangladesh provides the list of the main species caught.

⁵² Department of Fisheries. Government of the People's Republic of Bangladesh. http://fisheries.gov.bd/site/page/43ce3767-3981-4248-99bd-d321b6e3a7e5/-⁵³ Ibidem

the Government has declared a marine reserve (covering 698 km²) in the Bay of Bengal to protect and preserve the breeding grounds of marine flora and fauna⁵⁴.

		-	_	-		、		, ,		
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Hilsa shad	198.574	225.325	232.037	252.575	257.626	251.815	254.195	278.948	284.500	290.316
Marine fishes nei	266.116	171.527	192.414	194.265	211.899	222.088	240.237	216.178	221.184	230.865
Bombay duck	59.374	60.750	62.817	71.745	51.673	53.950	58.545	69.230	75.085	68.101
Marine crustaceans nei	52.592	56.989	57.660	46.568	47.668	45.733	47.583	49.619	48.847	42.749
Sea catfishes nei	16.721	17.193	19.700	8.594	9.719	9.476	8.695	8.424	9.455	11.455
Indian threadfin	7.732	7.805	7.089	6.646	7.249	7.598	8.215	6.608	7.567	7.898
Others	6.383	6.744	6.903	8.595	9.551	9.186	9.058	8.469	8.049	8.527
Total	607.492	546.333	578.620	588.988	595.385	599.846	626.528	637.476	654.687	659.911

Table 25. MARINE CATCHES BY MAIN SPECIES IN BANGLADESH (volume in tonnes)

Source: FAO FishStat.

Aquaculture

Aquaculture systems in Bangladesh can be classified into:

- extensive system relying on natural food produced in the water body without supplementary inputs,
- semi-intensive systems relying mostly on natural feed but supplemented with feed and fertiliser, and
- intensive systems relying on nutritionally complete concentrate feed and fertilisers.

In Bangladesh, inland pond culture represents the most important part of aquaculture. According to a recent study⁵⁵, 90% of the total pond area in Bangladesh is reported to be used for fish production⁵⁶. Average fish production in ponds is 4.851 kg/ha/year⁵⁷.

In 2019, the aquaculture production reached almost 2,5 million tonnes, an increase of 90% from 2010. In 2019, almost half of this production consisted of carps and other cyprinids (49% of total aquaculture production). Catfish, reared in monoculture semi-intensive or intensive facilities, was the main reared species in Bangladesh in 2019, contributing to 18% of the total aquaculture production. Other main species include Indian major carps such as rohu labeo (*Labeo rohita*), marigal (*Cirrhinus cirrhosus*), and catla (*Catla catla*), reared in extensive facilities, and exotic carps such as silver carp, common carp, and grass carp, mainly reared in semi-intensive facilities.

Tilapias, which ranked third in terms of the largest species group reared in Bangladesh, has experienced the highest growth between 2010 and 2019, from circa 25.000 tonnes to 350.000 tonnes per year. In 2019, tilapias contributed 11% of national aquaculture production. The two tilapia species mainly reared in Bangladesh are Nile tilapia (*Oreochromis niloticus*), and Java tilapia (*Oreochromis mossambicus*).

Shrimp farming is concentrated in southern Bangladesh and occupies a total area of 258.681 ha⁵⁸. Total shrimp and prawn production was circa 134.000 tonnes in 2019. The main species are giant tiger prawn (*Penaeus monodon*), locally called bagda (over than 63.000 tonnes produced in 2019, representing 3% of total aquaculture production) and giant river prawn (*Macrobrachium rosenbergii*), locally called golda (overs 52.000 tonnes, 2% of total aquaculture production). Other species are speckled shrimp (*Metapenaeus monoceros*) (local name: horina), and Indian white prawn (*Penaeus indicus*) (local name: chaka). Traditionally, shrimp farming was extensive with no feed, fertilisers, or other inputs being applied. With an increasing demand from both national and international markets, some have switched to improved extensive and semi-intensive systems⁵⁹. Giant river prawn (*M. rosenbergii*) is also cultured along with carps in some areas of the country.

⁵⁴ Department of Fisheries. Government of the People's Republic of Bangladesh. http://fisheries.gov.bd/site/page/43ce3767-3981-4248-99bd-d321b6e3a7e5/-⁵⁵ Fisheries and aquaculture in Bangladesh: challenges and opportunities, 2017.

⁵⁶ Ibidem.

⁵⁷ Department of Fisheries. Government of the People's Republic of Bangladesh. http://fisheries.gov.bd/site/page/43ce3767-3981-4248-99bd-d321b6e3a7e5/-

⁵⁸ Department of Fisheries. Government of the People's Republic of Bangladesh. http://fisheries.gov.bd/site/page/43ce3767-3981-4248-99bd-d321b6e3a7e5/⁵⁹ Fisheries and aquaculture in Bangladesh: challenges and opportunities, 2017.

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Carps, barbels and other cyprinids	938.813	980.063	1.051.584	1.076.604	997.820	995.641	990.486	1.108.697	1.175.066	1.228.852
Miscellaneous freshwater fishes	183.070	251.351	350.376	361.573	451.319	511.005	611.589	620.459	611.041	630.729
Tilapias and other cichlids	24.823	104.716	123.712	209.650	283.937	324.336	342.567	334.513	344.784	350.258
Shrimps, prawns	87.984	127.339	137.174	140.261	130.192	132.794	132.513	139.152	130.921	133.748
Marine fishes not identified	73.825	60.290	63.220	71.720	93.657	96.632	113.239	116.110	131.817	132.929
Crabs, sea- spiders	-	-	-	-	-	-	13.160	14.421	11.787	12.084
Total Source [,] FAO EishStat	1.308.515	1.523.759	1.726.066	1.859.808	1.956.925	2.060.408	2.203.554	2.333.352	2.405.416	2.488.600

Table 26. AQUACULTURE PRODUCTION BY MAIN GROUP OF SPECIES IN BANGLADESH (volume in tonnes)

5.2. Processing and marketing

In general, fish markets in Bangladesh are situated in both rural and urban areas. The majority of pond-produced fish is marketed locally without any processing and sold fresh. Shrimp is mainly frozen and destined for the export market. A large number of people are involved in the fish supply chain, including farmers, processors, traders, intermediaries, and transporters. According to national statistics, there are 100 fish processing plants in Bangladesh, of which 76 are approved by the EU, and thus allowed to export to the EU⁶⁰.

According to FAO FishStat, processing concerns the following: dried fish (almost 62.000 tonnes in 2019), frozen shrimps and prawns mainly for the export market (overs 33.000 tonnes), frozen fish (circa 25.000 tonnes), and fishmeal (almost 7.000 tonnes). In total, circa 127.000 tonnes (net product weight) of processed seafood products were produced in Bangladesh in 2019.

Table 27. PRODUCTION OF PROCESSED FISHERIES AND AQUACULTURE PRODUCTS IN BANGLADESH (volume of net product weight in tonnes)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Miscellaneous freshwater fish, dried, whether or not salted, not smoked, nei	51.497	52.729	47.855	48.073	49.790	51.199	52.412	58.480	60.827	61.785
Shrimps and prawns, frozen, nei	51.599	54.891	48.007	50.333	47.636	44.278	40.726	39.706	36.168	33.362
Fish, frozen, nei	20.599	21.092	19.142	19.229	19.916	21.480	21.855	23.272	24.331	24.714
Fishmeals, nei	5.655	5.660	5.667	5.673	5.689	5.860	7.825	5.000	6.736	6.824
Shark fins, smoked, dried, whether or not salted, etc.	955	-	-	1	-	-	7	5	1	-
Total	130.305	134.372	120.671	123.309	123.031	122.817	122.825	126.463	128.063	126.685
Source: EAO EishStat										

ource: FAO FishStat.

5.3. Import-Export

Due to the export-oriented farmed shrimp industry, the Bangladesh trade surplus for fishery and aquaculture products is high, reaching EUR 279 million in 2019. However, it has dropped significantly since 2016 (-35%) due to the increase of imports (in particular the increase of demand from the shrimp sector for fishmeal).

Overview | 1. First sales in Europe | 2. Extra-EU imports | 3. Consumption

4. Covid-19 impact of farmed species | 5. Fisheries and aquaculture in Bangladesh | 6. Global highlights |

7. Macroeconomic context

⁶⁰ Department of Fisheries. Government of the People's Republic of Bangladesh. http://fisheries.gov.bd/site/page/43ce3767-3981-4248-99bd-d321b6e3a7e5/-

	2015	2016	2017	2018	2019
Exports	403.525	504.305	439.895	379.531	422.136
Imports	79.683	77.343	82.459	103.470	142.889
Balance	323.842	426.961	357.435	276.060	279.248

Table 28. TRADE BALANCE FOR FISH AND SEAFOOD IN BANGLADESH (in EUR 1.000)

Source: FAO global fish trade database.

In 2019, Bangladeshi imports of fishery and aquaculture products amounted to 156.050 tonnes for a value of almost EUR 143 million. In value terms, the main products imported were fishmeals nei (22% of total value), frozen fish nei (21%), and frozen pelagics (18%). Other main products imported in value terms included fresh or chilled carps (13%) and dried fish (7%). The main countries of origin in value terms were India (32%, dominated by fishmeals nei, fresh carps, and dried fish), and China (24%, mostly frozen pelagics). Other important origins were Thailand (8%) and Myanmar (7%).

Figure 48. MAIN FISH PRODUCTS IMPORTED INTO BANGLADESH (LEFT) AND MAIN ORIGINS OF BANGLADESHI IMPORTS (RIGHT) IN 2019 IN VALUE TERMS



Source: FAO global fish trade database.

The same year (2019), Bangladeshi exports of fishery and aquaculture products reached 74.234 tonnes for a value of EUR 422 million. In value terms, the main fish products exported were frozen shrimps (*Penaeus* spp., 41% of total export value), followed by other frozen shrimps and prawns (24%). Other important exported products were live, fresh, or chilled crabs (11%), live fish nei (5%), and fresh or chilled fish nei (3%). The top destination in value terms was the EU-27 (39% of total export value), followed by China (18%) and the UK (14%).

Figure 49. MAIN FISH PRODUCTS EXPORTED BY BANGLADESH (LEFT) AND MAIN DESTINATIONS OF BANGLADESHI EXPORTS (RIGHT) IN 2019 IN VALUE TERMS



Source: FAO global fish trade database.

5.4. Trade flows with the EU

Bangladesh is a net exporter to the EU-27 for fishery and aquaculture products. However, the EU trade deficit with Bangladesh in value terms has been decreasing compared to 2017, culminating in a value of almost EUR 188 million in 2021.

	······										
	2017	2018	2019	2020	2021						
Imports	267.675	199.080	199.472	170.311	189.623						
Exports	12.391	3.805	2.160	1.780	1.899						
Balance	-255.283	-195.275	-197.311	-168.532	-187.724						

Table 29. EU TRADE BALANCE WITH BANGLADESH FOR FISHERIES AND AQUACULTURE PRODUCTS (in EUR 1.000)

Source: EUMOFA elaboration of EUROSTAT-COMEXT data.

In 2021, EU imports from Bangladesh amounted to 21.592 tonnes for a value of EUR 190 million (+11% compared to 2020 but - 29% in value compared to 2017). In value terms, frozen products accounted for 97% of total imports, followed by prepared or preserved products (3%). Shrimp products dominated EU imports (97% of total value, 88% for *Penaeus* shrimp and 9% for other shrimps). The main destinations in value terms were the Netherlands (33%), Belgium (26%), and Germany (20%). The Netherlands and Belgium are trade hubs for seafood products imported into the EU, and therefore are likely not to be the final market destinations for these products in the EU.





Source: EUMOFA elaboration of EUROSTAT-COMEXT data.

EU exports to Bangladesh are very limited. In 2021, they amounted to 1.062 tonnes for a value of almost EUR 2 million. In value terms, non-food use products other than fishmeal and fish oil (mostly fish solubles) represented 74% of total exports, followed by fish oil (18%). The main exporting Member States in value terms were France (25% of the total export value) and the Netherlands (23%).

5.5. Consumption

Fish play a crucial role in the Bangladeshi diet, providing more than 60% of animal source food, but studies on fish consumption show a very substantial variation depending on location, income, and season. A study from 2011⁶¹ demonstrated that low value wild fish and cultured carps were the most common fish consumed in rural areas, whereas species produced by industrial (not traditional) aquaculture (i.e., pangasius, tilapia, and climbing perch) are increasingly dominant in Dhaka and other urban markets, along with higher value wild fish. The per capita annual consumption is estimated at 21,90 kg according to national statistics⁶².

⁶¹https://aquadocs.org/bitstream/handle/1834/24444/WF_2970.pdf?sequence=1

⁶² Department of Fisheries. Government of the People's Republic of Bangladesh. http://fisheries.gov.bd/site/page/43ce3767-3981-4248-99bd-d321b6e3a7e5/-

6. Global highlights

EU / Food security / Support: On 23 March 2022, the European Commission presented a range of short-term and medium-term actions to enhance global food security and to support farmers and consumers in the EU in light of rising food prices and input costs, such as energy and fertilisers. The Commission has proposed a new, self-standing Temporary Crisis Framework that also covers farmers, fertiliser producers, and the fisheries sector. This allows state aid to be accessed by farmers affected by significant increases in input costs⁶³.



EU / Sustainability: The fourth Intergovernmental Conference on a Treaty of the High Seas (the UNCLOS implementing agreement on biodiversity beyond national jurisdiction, known also as "BBNJ") concluded its work on March 18, and an agreement on an ambitious, fair, and effective agreement on the treaty is in sight. Such an agreement will provide much needed protection for biodiversity in the ocean. The EU confirmed itself as the driving force in the negotiations, participating actively, and was often hailed as a "bridge builder" in the discussions. In concluding the conference, the EU and its Member States stressed the urgency of acting to protect the ocean globally⁶⁴.

EU / RFMO / NPFC: The European Union (EU) became officially member of the North Pacific Fisheries Commission (NPFC) on 23 March 2022. The NPFC is a Regional Fisheries Management Organisation (RFMO) established in 2015 to ensure the long-term conservation of the stocks and protection of the marine ecosystems of the North Pacific Ocean. The main target species currently regulated by the NPFC are Pacific saury, chub mackerel, sablefish, Japanese sardine, neon flying squid, Japanese flying squid, as well as some deep sea species. Through its active participation in the NPFC, the EU will promote the conservation and sustainable management of the marine biological resources managed by this RFMO as well as the protection of vulnerable marine ecosystems and species⁶⁵.

Scotland / Fisheries: The Scottish Government has said it will not take part in any fisheries negotiations with the Russian Federation in the wake of the invasion of Ukraine. Officials from the Russian Federation are regular participants in multilateral discussions around future shares and allocation of key stocks, including mackerel, blue whiting and Atlanto-Scandian herring, and a series of meetings on sharing arrangements took place in the week of 14 March. Environment Secretary Mairi Gougeon has instructed Scottish Government officials to withdraw from any such negotiations until further notice⁶⁶.

Iceland / Trade: Icelandic seafood export companies are expected to suffer considerable losses due to the Russian war of aggression against Ukraine. The losses in the seafood industry are expected to amount to billions of Icelandic krónur, or tens of millions of EUR⁶⁷.

Nigeria / Catfish / Supply: Nigeria's huge catfish sector provides an income and healthy food to millions of people, according to an assessment presented on 22 March to over 80 stakeholders and experts, who discussed ways to improve domestic production, while bolstering the benefits to women and youth and lessening the burden on the environment. This comprehensive assessment offers prospects for a stronger catfish value chain in all areas of the sustainable development agenda that Europe supports, according to the EU delegation in Nigeria⁶⁸.

⁶³ https://ec.europa.eu/commission/presscorner/detail/en/ip_22_1963

⁶⁴ https://ec.europa.eu/oceans-and-fisheries/news/eu-committed-protection-biodiversity-ocean-2022-03-21_en

⁶⁵ https://ec.europa.eu/oceans-and-fisheries/news/eu-now-member-north-pacific-fisheries-commission-2022-03-30_en

⁶⁶ https://www.gov.scot/publications/attendance-at-meetings-with-the-russian-federation-international-fisheries-fora-letter-from-cabinet-secretaryfor-rural-affairs-and-islands/

⁶⁷ https://www.icelandreview.com/business/russia-ukraine-conflict-means-losses-for-icelandic-fishing-industry/

⁶⁸ https://thefishsite.com/articles/value-chain-analysis-could-help-unlock-the-potential-of-nigerias-catfish-industry

7. Macroeconomic Context

7.1. Marine fuel

Average prices for marine fuel in **April 2022** ranged between 0,95 and 0,99 EUR/litre in ports in **France, Italy, Spain,** and the **UK**. Prices increased by about 4% compared with the previous month and increased by 128% compared with the same month in 2021.

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Member State	Apr 2022	Change from Mar 2022	Change from Apr 2021
France (ports of Lorient and Boulogne)	0,99	6%	141%
Italy (ports of Ancona and Livorno)	0,95	4%	144%
Spain (ports of A Coruña and Vigo)	0,97	3%	106%
The UK (ports of Grimsby and Aberdeen)	0,96	2%	123%

Source: Chamber of Commerce of Forlì-Cesena, Italy; DPMA, France; MABUX.





Source: Chamber of Commerce of Forlì-Cesena, Italy; DPMA, France; MABUX.

7.2. Consumer prices

The EU annual inflation rate was at 7,8% in March 2022, up from 6,2% in February 2022. A year earlier, the rate was 1,7%.



fable 31. HARMONISED INDEX OF CONSUMER PRICES IN THE EU (2015 = 100)									
	Mar 2019	Mar 2021	Feb 2022	Mar 2022	Change from Feb 2022		Change from Mar 2021		
Food and non- alcoholic beverages	109,02	109,72	115,60	117,09	ŧ	1,3%	*	6,7%	
Fish and seafood	113,20	113,24	119,08	121,31	1	1,9%	1	7,1%	

Source: Eurostat.

7.3. Exchange rates

Table 32. EURO EXCHANGE RATES FOR SELECTED CURRENCIES

Currency	Apr 2019	Apr 2021	Mar 2022	Apr 2022
NOK	11,1840	9,9533	9,7110	9,7525
JPY	115,87	131,62	135,17	137,01
USD	1,1218	1,2082	1,1101	1,0540

In April 2022, the euro appreciated against the Norwegian krone (0,4%), the Japanese yen (1,4%), and US dollar (0,1%) relative to the previous month. For the past six months, the euro has fluctuated around 131,48 against the Japanese yen. Compared with April 2021, the euro has appreciated 4,1% against the Japanese yen, and depreciated 2,0% against the Norwegian krone and 12,8% against the US dollar.

Source: European Central Bank.

Figure 52. TREND OF EURO EXCHANGE RATES



Source: European Central Bank.

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FOR MORE INFORMATION AND COMMENTS:

Directorate-General for Maritime Affairs and Fisheries B-1049 Brussels E-mail: contact-us@eumofa.eu

This report has been compiled using EUMOFA data and the following sources:

First sales: Council of the European Union, FAO, EUR-lex, Candeias Artes Graficas-Braga-Portugal, MSC, FAO, ICES, International Journal of Zoology, Scientia Marina.

Consumption: EUROPANEL.

Case studies: Spanish Aquaculture Business Association, Eurostat, Worldometer, Department of Fisheries. Government of the People's Republic of Bangladesh, FAO Fishstat, FAO, Aquadocs.

Global highlights: DG Mare - European Commission, Scottish Government. Spain Today News, The Fish Site.

Macroeconomic context: EUROSTAT, Chamber of Commerce of Forlì-Cesena, Italy: DPMA, France: ARVI, Spain: MABUX, European Central Bank.

The underlying first-sales data is in an annex available on the EUMOFA website. Analyses are made at aggregated (main commercial species) level and according to the EU Electronic recording and reporting system (ERS).

In the context of this Monthly Highlights, analyses are led in current prices and expressed in nominal values.

The **European Market Observatory for Fisheries and Aquaculture Products (EUMOFA)** was developed by the European Commission, representing one of the tools of the new Market Policy in the framework of the reform of the Common Fisheries Policy. [Regulation (EU) No 1379/2013 art. 42].

As a **market intelligence tool**, EUMOFA provides regular weekly prices, monthly market trends, and annual structural data along the supply chain.

The database is based on data provided and validated by Member States and European institutions. It is available in 24 languages.

The EUMOFA website is publicly available at the following address: <u>www.eumofa.eu</u>.

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