

Monthly Highlights

No. 2 / 2022

EUMOFA

European Market Observatory for Fisheries and Aquaculture Products

In this issue

Of the 10 commodity groups (CG), the "bivalves and other molluscs and aquatic invertebrates" CG recorded the fifth highest first sales in value and volume in November 2021.

Over the 36-month observation period from November 2018 to November 2021, the weighted average first-sales price of Japanese carpet shell in Spain was 9,92 EUR/kg. This was five-fold higher than in Portugal (1,66 EUR/kg), and 39% greater than in Italy (7,12 EUR/kg).

Since the beginning of 2022, both the price and volume of prepared or preserved mackerel fillets from Morocco have demonstrated an upward trend.

In the period December 2018 – November 2021, Spanish consumers spent an average of 10,50 EUR per month on a kilogram of miscellaneous tunas.

In 2021, EU Trade with Tunisia shows a deficit, amounting to about EUR 80 million.

Italy, the biggest importing Member State of swordfish, imported nearly 7.000 tonnes of swordfish at a value of EUR 45 million in 2021.

The European Commission has adopted a set of conservation measures to protect six areas defined under the Marine Strategy Framework Directive (MSFD) and five Natura 2000 sites, in the Danish and Swedish parts of the Kattegat.



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1. First sales in Europe

Between **January and November 2021**, 12 EU Member States (MSs), 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 this section, "First sales in Europe", are extracted from EUMOFA², as collected from national administrations.

1.1. January-November 2021 compared to the same period in 2020

Increases in value and volume: Bulgaria, France, Portugal, and the United Kingdom all recorded increases. A higher supply of clam, sprat, and red mullet in Bulgaria, and octopus and sardine in Portugal, led to the sharp increases experienced in these countries.

Decreases in value and volume: Greece, Latvia, the Netherlands, and Sweden all recorded decreases. A decrease in first sales of herring was behind the decline in Sweden.

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

	January–No 2019		January–N 202		January–N 202		Change January–N 202	ovember
Country	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Belgium	12.424	53,1	11.316	50,5	10.494	54,0	-7%	7%
Bulgaria	4.784	2,6	2.514	1,6	3.934	2,8	56%	69%
Cyprus	1.000	4,0	798	3,1	792	3,4	-1%	10%
Estonia	59.398	14,6	60.017	15,5	58.836	15,8	-2%	2%
France	165.187	556,8	147.819	483,6	151.004	557,7	2%	15%
Greece	22.581	47,5	25.808	54,8	17.572	46,9	-32%	-14%
Italy	87.114	337,3	81.490	301,6	76.699	320,5	-6%	6%
Latvia	48.259	8,1	44.290	9,1	42.240	9,0	-5%	-1%
Lithuania	854	0,6	2.181	0,9	2.385	1,1	9%	25%
Netherlands	225.971	354,0	213.727	325,2	192.912	295,8	-10%	-9%
Portugal	122.445	249,2	97.267	214,7	125.699	273,6	29%	27%
Spain	505.508	1476,1	479.569	1301,5	445.626	1331,5	-7%	2%
Sweden	170.712	86,8	127.853	73,2	83.244	51,9	-35%	-29%
Norway	2.701.648	2480,0	2.808.127	2368,2	2.777.104	2512,9	-1%	6%
United Kingdom	268.890	561,9	283.478	461,7	299.642	549,1	6%	19%

Possible discrepancies in % changes are due to rounding.

^{*}Volumes are reported in net weight for EU Member States, 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.

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 02.02.2022.

1.2. November 2021 compared to November 2020

Increases in value and volume: First sales increased in Cyprus (due to swordfish), France, Latvia, the Netherlands, Portugal (due to sardine and squid), Norway, and the United Kingdom.

Decreases in value and volume: First sales decreased in Bulgaria, Greece, Lithuania, and Sweden. Sweden recorded one of the sharpest decreases in relative terms due to decreased sales in herring and sprat.

Table 2. NOVEMBER OVERVIEW OF FIRST SALES FROM THE REPORTING COUNTRIES (volume in tonnes and value in million EUR) *

	Novembe	er 2019	Novembe	r 2020	Novembe	er 2021	Change Novemb	
Country	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Belgium	1.144	5,4	1.153	4,3	1.071	6,0	-7%	40%
Bulgaria	312	0,3	308	0,3	262	0,3	-15%	-2%
Cyprus	28	0,2	23	0,2	34	0,3	53%	60%
Estonia	9.548	1,9	7.728	1,6	7.364	1,7	-5%	3%
France	14.284	47,1	15.393	48,9	17.320	65,6	13%	34%
Greece	2.338	5,7	2.081	6,1	1.781	5,7	-14%	-6%
Italy	6.898	27,7	8.100	28,8	6.031	30,1	-26%	5%
Latvia	4.139	0,8	5.168	1,1	6.807	1,5	32%	43%
Lithuania	124	0,1	368	0,1	319	0,1	-13%	-22%
Netherlands	4.534	19,8	11.217	22,8	24.895	36,8	122%	61%
Portugal	9.634	15,3	8.089	17,3	14.020	28,4	73%	64%
Spain	32.292	112,4	40.600	110,2	34.909	122,0	-14%	11%
Sweden	14.805	6,9	14.905	6,2	2.484	3,4	-83%	-45%
Norway	296.127	248,4	217.600	193,5	241.092	232,3	11%	20%
United Kingdom	25.630	54,1	29.374	47,9	31.956	65,9	9%	38%

Possible discrepancies in % changes are due to rounding.

The most recent weekly first-sales data (**up to week 9 of 2022**) are available via the EUMOFA website and can be accessed **here**.

The most recent monthly first-sales data **for December 2021** are available via the EUMOFA website and can be accessed **here**.

^{*} 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.

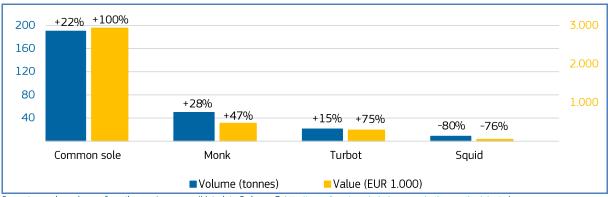
1.3. First sales in selected countries

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

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

Belgium	First-sales value / trend %	First-sales volume / trend %	Main contributing species	Notes
Jan-Nov 2021 vs Jan-Nov 2020	EUR 54,0 million, +7%	10.494 tonnes, -7%	Value: common sole, monkfish, Norway lobster, turbot. Volume: ray, European plaice, cuttlefish, squid.	In November 2021 compared to November 2020, squid recorded a large decrease in first sales. Squid prefer cold water and seek refuge in the deep sea during the summer.
Nov 2021 vs Nov 2020	EUR 6,0 million, +40%	1.071 tonnes, -7%	Value: common sole, monkfish. Volume: turbot, squid.	Therefore, the largest production usually occurs between November and February, when the water temperature is colder. However, during November 2021, in the North Sea area, mild temperatures were observed, with an average recorded temperature of 14°C. Squid production therefore declined.

Figure 1. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN BELGIUM, NOVEMBER 2021



Percentages show change from the previous year. (Metadata 2, Annex 3: http://eumofa.eu/supply-balance-and-other-methodologies).

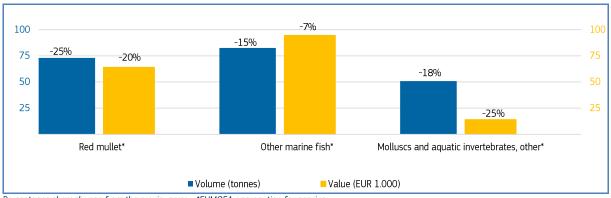
Table 4. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN BULGARIA

Bulgaria	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan-Nov 2021 vs	EUR 2,8 million,	3.934 tonnes,	Clam, sprat, red mullet, other marine fish*.
Jan-Nov 2020	+69%	+56%	
Nov 2021 vs	EUR 0,3 million,	262 tonnes,	Red mullet, other marine fish*, other molluscs and aquatic invertebrates*
Nov 2020	-2%	-15%	

³ First-sales data updated on 01.02.2022.

⁴ Data on fisheries and aquaculture products harmonised by EUMOFA, allowing comparisons along the different supply chain stages.

Figure 2. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN BULGARIA, NOVEMBER 2021

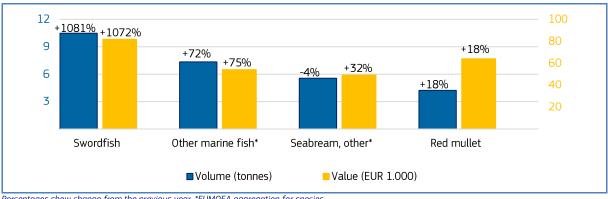


Percentages show change from the previous year. *EUMOFA aggregation for species.

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

Cyprus	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan–Nov 2021 vs	EUR 3,4 million,	792 tonnes,	Value: swordfish, other marine fish*, other seabream*. Volume: albacore tuna.
Jan–Nov 2020	+10%	-1%	
Jan-Nov 2020	1070	170	volume: albacore tuna.
Nov 2021 vs	EUR 0,3 million,	34 tonnes,	Swordfish, other marine fish*, other seabream (other than gilthead seabream), red mullet.
Nov 2020	+60%	+53%	

Figure 3. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN CYPRUS, NOVEMBER 2021

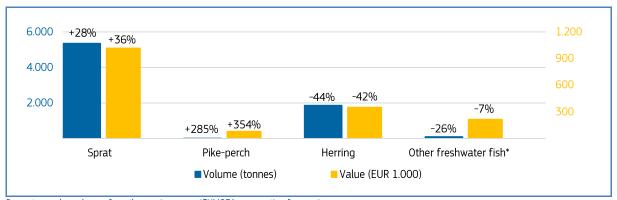


Percentages show change from the previous year. *EUMOFA aggregation for species.

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

Estonia	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan–Nov 2021 vs	EUR 15,8 million,	58.836 tonnes,	Value: sprat, herring. Volume: herring, pike-perch, smelt, other freshwater fish*.
Jan–Nov 2020	+2%	-2%	
Nov 2021 vs	EUR 1,7 million,	7.364 tonnes,	Value: sprat, pike-perch. Volume: herring, other freshwater fish*.
Nov 2020	+3%	-5%	

Figure 4. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN ESTONIA, NOVEMBER 2021

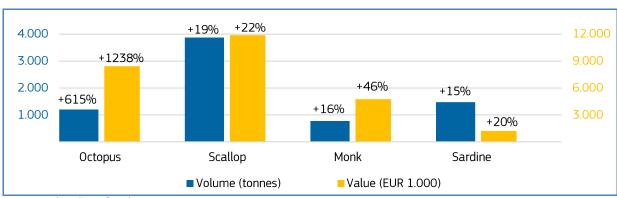


Percentages show change from the previous year. *EUMOFA aggregation for species

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

France	First-sales value / trend %	First-sales volume / trend %	Main contributing species	Notes
Jan–Nov 2021 vs Jan–Nov 2020	EUR 557,7 million, +15%	151.004 tonnes, +2%	Octopus, scallop, monk, Norway lobster.	In November 2021, compared to November 2020, octopus recorded significant increases in first sales. This cephalopod demonstrates strong
Nov 2021 vs Nov 2020	EUR 65,6 million, +34%	17.320 tonnes, +13%	Octopus, scallop, monkfish, sardine.	fluctuations in abundance due to biological and environmental factors. However, evidence has yet to explain the abrupt increase recorded during this period. The main drivers may be linked to climate change and environmental variability, given the sensitivity of these species to changing hydroclimate conditions. Octopus is one of the fisheries and aquaculture products with the highest demand in the last few years and the reference value for the year 2020 (and beforehand) are related to the usual minor quantities fished.

Figure 5. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN FRANCE, NOVEMBER 2021

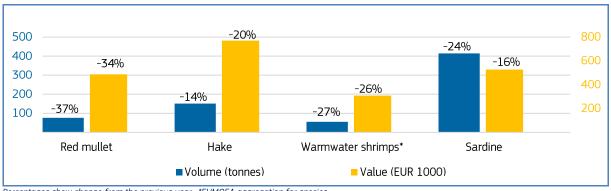


Percentages show change from the previous year.

Table 8. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN GREECE

Greece	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan-Nov 2021 vs	EUR 46,9 million,	17.572 tonnes,	Anchovy, sardine, miscellaneous tuna*, octopus.
Jan-Nov 2020	-14%	-32%	
Nov 2021 vs	EUR 5,7 million,	1.781 tonnes,	Red mullet, hake, warmwater shrimps*, sardine.
Nov 2020	-6%	-14%	

Figure 6. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN GREECE, NOVEMBER 2021

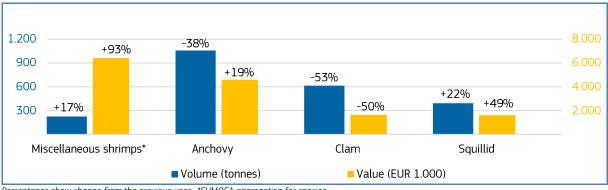


Percentages show change from the previous year. *EUMOFA aggregation for species.

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

Italy	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan-Nov 2021 vs	EUR 320,5 million,	76.699 tonnes,	Value : miscellaneous shrimps*, red mullet, common sole. Volume : anchovy, clam, hake.
Jan-Nov 2020	+6%	-6%	
Nov 2021 vs	EUR 30,1 million,	6.031 tonnes,	Miscellaneous shrimps, anchovy, clam, squillid.
Nov 2020	+5%	-26%	

Figure 7. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN ITALY, NOVEMBER 2021

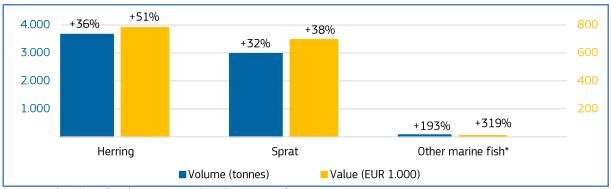


Percentages show change from the previous year. *EUMOFA aggregation for species.

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

Latvia	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan-Nov 2021 vs	EUR 9,0 million,	42.240 tonnes,	Sprat, smelt, cod, European flounder.
Jan-Nov 2020	-1%	-5%	
Nov 2021 vs	EUR 1,5 million,	6.807 tonnes,	Herring, sprat, other marine fish*.
Nov 2020	+43%	+32%	

Figure 8. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN LATVIA, NOVEMBER 2021

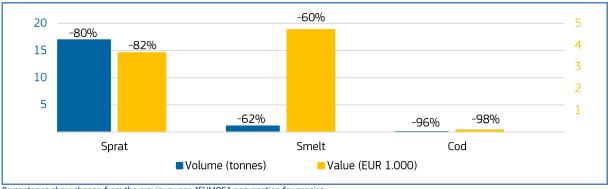


Percentages show change from the previous year. *EUMOFA aggregation for species.

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

Lithuania	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan-Nov 2021 vs	EUR 1,1 million,	2.385 tonnes,	Smelt, herring, other groundfish*, turbot.
Jan-Nov 2020	+25%	+9%	
Nov 2021 vs	EUR 0,09 million,	319 tonnes,	Sprat, smelt, cod.
Nov 2020	-22%	-13%	

Figure 9. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN LITHUANIA, NOVEMBER 2021

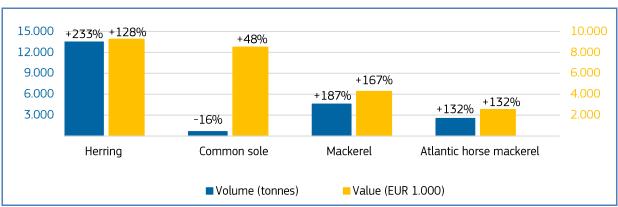


Percentages show change from the previous year. *EUMOFA aggregation for species.

Table 12. 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-Nov 2021 vs Jan-Nov 2020	EUR 295,8 million, -9%	192.912 tonnes, -10%	Herring, mackerel, blue whiting, European plaice.	Mackerel fishing in Norwegian waters was hampered by bad weather at the end of September 2021. Very strong winds kept the
Nov 2021 vs Nov 2020	EUR 36,8 million, +61%	24.895 tonnes, +122%	Herring, common sole, mackerel, Atlantic horse mackerel.	fleet tied up in port. As a result, the first sales of mackerel over the first 10 months of 2021 was considerably lower than during the first 10 months of 2020, with a decrease of 45%. Herring production in the first 10 months of 2021 was lower than during the first 10 months of 2020, experiencing a decline of 49%. The increase in first sales of Atlantic horse mackerel could be due to the species being targeted by pelagic freezer trawlers in the summer. As a result of this, the production of this species over the first 10 months of 2021 was 6% less than that recorded over the first 10 months of 2020. The increases recorded for mackerel, herring, and Atlantic horse mackerel in November 2021, compared to November 2020, can be seen as compensation (or catch-up) for the observed delay.

Figure 10. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN THE NETHERLANDS, NOVEMBER 2021



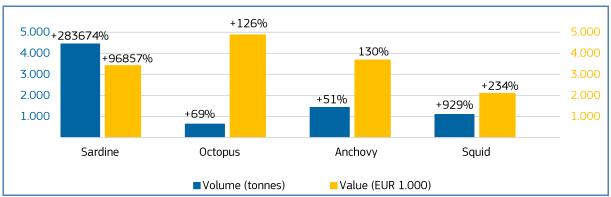
Percentages show change from the previous year.

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

Portugal	First-sales value / trend %	First-sales volume / trend %	Main contributing species	Notes			
Jan–Nov 2021 vs Jan–Nov 2020	EUR 273,6 million, +27%	125.699 tonnes, +29%	Octopus, anchovy, sardine, skipjack tuna.	The recovery of the sardine stock explains the high first-sale figures in November 2021. The fishing season, unless the quota			
Nov 2021 vs Nov 2020	EUR 28,4 million, 14.020 tonnes, +64% +73%		Sardine, octopus, anchovy, squid.	is fully caught earlier, ends on the 30th of November 2021 ⁵ .			

⁵ Despacho Nº 11820-A/2021

Figure 11. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN PORTUGAL, NOVEMBER 2021

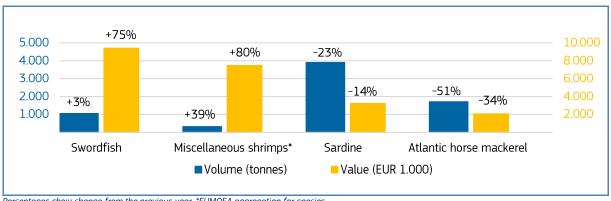


Percentages show change from the previous year.

Table 14. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN SPAIN

<u> </u>	First-sales value / trend in %	First-sales volume / trend %	Main contributing species
Jan-Nov 2021 vs	EUR 1,3 billion,	445.626 tonnes,	Value : anchovy, swordfish, miscellaneous shrimps*, octopus. Volume : mackerel, Atlantic horse mackerel, monkfish, skipjack tuna.
Jan-Nov 2020	+2%	-7%	
Nov 2021 vs	EUR 122,0 million,	34.909 tonnes,	Value : swordfish, miscellaneous shrimps*. Volume : sardine, Atlantic horse mackerel.
Nov 2020	+11%	-14%	

Figure 12. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN SPAIN, NOVEMBER 2021



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

Table 15. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN SWEDEN

Sweden	First-sales value / trend in %	First-sales volume / trend in %	Main contributing species	Notes
Jan–Nov 2021 vs Jan–Nov 2020	EUR 51,9 million, -29%	83.244 tonnes, -35%	Herring, coldwater shrimp, Norway lobster, other groundfish*, sprat.	Herring sales in November 2021 accounted for only 24% of the Swedish fleet's total catches of herring, while in the previous year, they made up 88% of the total. One of the reasons for this decrease in sales might be a reduction in the total allowed catches of herring in the Baltic Sea (-31% from 2020 to 2021). It was observed that catches in Sweden in November 2020 were
Nov 2021 vs Nov 2020	EUR 3,4 million, -45%	2.484 tonnes, -83%	Herring, sprat, coldwater shrimp, cod.	higher by 28%, while sales in November 2021 were lower by 80%. The decreased supply in November 2021 and sales for human consumption, which was a large part of the quantity sold, caused the price to rise by 117%. Sprat sales in November 2021 accounted for only 15% of the Swedish fleet's total catches of sprat, while sprat sales in November of the previous

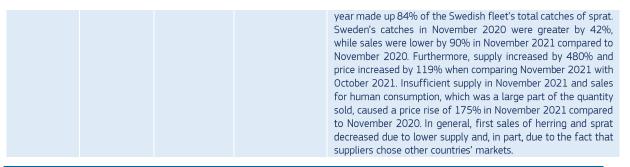
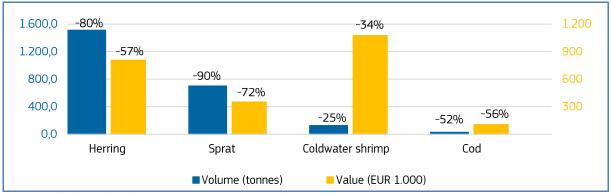


Figure 13. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN SWEDEN, NOVEMBER 2021

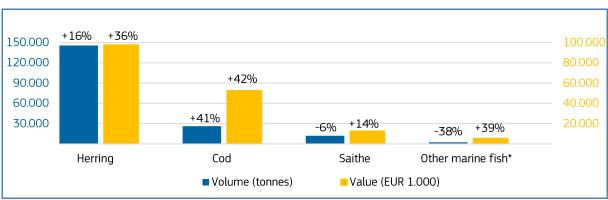


Percentages show change from the previous year. *EUMOFA aggregation for species.

Table 16. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN NORWAY

Norway	First-sales value / trend %	First-sales volume ⁶ / trend %	Main contributing species
Jan–Nov 2021 vs	EUR 2,51 billion,	2,8 million tonnes,	Value: herring, miscellaneous small pelagics*, crab, mackerel. Volume: Blue whiting, other groundfish*.
Jan–Nov 2020	+6%	-1%	
Nov 2021 vs	EUR 232,3 million	241.092 tonnes,	Herring, cod, saithe, other marine fish.
Nov 2020	+20%	+11%	

Figure 14. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN NORWAY, NOVEMBER 2021



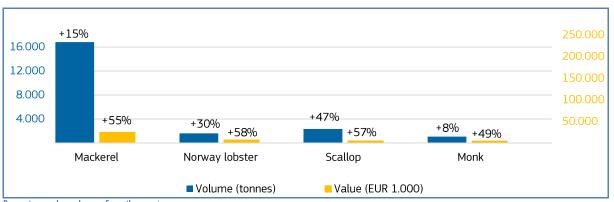
Percentages show change from the previous year. *EUMOFA aggregation for species.

⁶ Volume reported in live weight equivalent (LWE)

Table 17. 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–Nov 2021 vs	EUR 549,1 million,	299.642 tonnes,	Norway lobster, lobster <i>Homarus</i> spp., mackerel, herring, blue whiting.
Jan–Nov 2020	+19%	+6%	
Nov 2021 vs	EUR 65,9 million,	31.956 tonnes,	Mackerel, Norway lobster, scallop, monkfish.
Nov 2020	+38%	+9%	

Figure 15. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN THE UNITED KINGDOM, NOVEMBER 2021

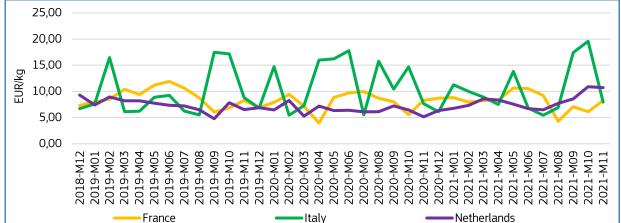


Percentages show change from the previous year.

1.4. Comparison of first-sales prices of selected species in selected countries⁷

Figure 16. FIRST-SALES PRICES OF EEL IN FRANCE, ITALY, AND THE NETHERLANDS

25,00 20,00 15,00 10,00



EU first sales of eel occur in multiple countries, including France, Italy, and the Netherlands. In November 2021, the average first-sales prices of eel were 8,22 EUR/kg in France (up by 34% from the previous month and down by 1% from the previous year); 7,96 EUR/kg in Italy (down from October 2021 by 59%, and up from November 2020 by 4%); and 10,72 EUR/kg in the Netherlands (down from the previous month by 2%, and up from the previous year by 108%). In November 2021, supply increased in the Netherlands by 371% and decreased in both France and Italy (-43% and -13% respectively), relative to the previous year. Volumes sold in the three markets exhibit a clear seasonality with regards to peaks: May-June and November-December in France, December in Italy, and June in the Netherlands. Over the past 36 months, eel prices showed an upward trend in Italy and the Netherlands, and the opposite in France. At the same time, supply showed a downward trend in Italy and the Netherlands, and an upward trend in France due to a peak in supply in October 2020.

⁷ First-sales data updated on 01.02.2022.

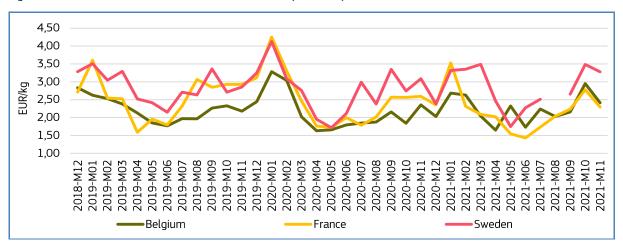


Figure 17. FIRST-SALES PRICES OF LING IN BELGIUM, FRANCE, AND SWEDEN

EU first sales of **ling** occur predominantly in **France**, as well as in **Belgium** and **Sweden**. In November 2021, the average first-sales prices of ling were: 2,41 EUR/kg in Belgium (down from the previous month by 18%, and up from the previous year by 2%); 2,29 EUR/kg in France (down from both October 2021 and November 2020 by 17% and 12%, respectively); and 3,28 EUR/kg in Sweden (down from the previous month by 6%, and up from the previous year by 6%). In November 2021, supply increased in France (+18%), and decreased in both Belgium and Sweden, relative to the previous year (-7% and -85%, respectively). Supply is seasonal with different peaks in all three markets: March-May and October-November in Belgium, May-July in France, and October-March in Sweden. Over the 36-month period observed, ling prices exhibited a downward trend in Belgium and France and remained stable in Sweden. During the same period, supply showed an increasing trend in Belgium, and the opposite in France and Sweden.

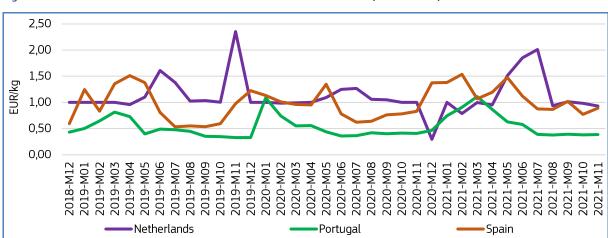
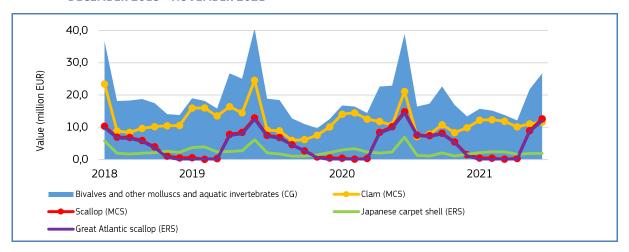


Figure 18. FIRST-SALES PRICES OF MACKEREL IN THE NETHERLANDS, PORTUGAL, AND SPAIN

EU first sales of **mackerel** occur predominantly in **Spain**, as well as in **the Netherlands** and **Portugal**. In November 2021, the average first-sales prices of mackerel were 0,93 EUR/kg in the Netherlands (down from both the previous month and year by 5% and 7%, respectively); 0,39 EUR/kg in Portugal (up from October 2021 by 2%, and down from November 2020 by 6%); and 0,89 EUR/kg in Spain (up from the previous month by 15%, and up from the previous year by 7%). In November 2021, supply increased in the Netherlands (+187%), remained unchanged in Portugal, and decreased in Spain (–51%), relative to the previous year. Volumes sold in the three markets are seasonal: in the Netherlands, supply peaks in February–March and October–November; in Portugal between July and November; and in Spain between March and April. Over the past three years, prices have remained stable in the Netherlands and Portugal, and exhibited an upward trend in Spain. At the same time, supply has decreased in all the three markets.

1.5. Commodity group of the month: Bivalves⁸ and other molluscs and aquatic invertebrates⁹

Figure 19. FIRST SALES COMPARISON AT CG, MCS, AND ERS LEVELS FOR REPORTING COUNTRIES¹⁰, DECEMBER 2018 - NOVEMBER 2021



The "bivalves and other molluscs and aquatic invertebrates" commodity group (CG¹¹) recorded the 7th highest first sales in terms of value and 5th highest first sales in terms of volume of the 10 CGs recorded in November 2021. Across the reporting countries covered by the EUMOFA database, first sales of bivalves reached a value of EUR 26,7 million and a volume of 7.529 tonnes, representing an increase in value of 17% and in volume of 3%, compared to November 2020. In the past 36 months, the highest first-sales value of bivalves was recorded at EUR 40,6 million in December 2019, while the lowest was recorded at EUR 9,7 million in May 2020.

The bivalves and other molluscs and aquatic invertebrates commodity group includes 10 main commercial species (MCS): abalone, clam, jellyfish, mussel *Mytilus* spp., other mussels, oyster, scallop, sea cucumber, sea urchin, other molluscs, and other invertebrates¹². At the Electronic Recording and Reporting System (ERS) level, Great Atlantic scallop (45%) and Japanese carpet shell (7%) together accounted for 52% of total "bivalves" first-sales value recorded in November 2021.

1.6. Focus on Great Atlantic scallop



The great Atlantic scallop (*Pecten maximus*), also called the king scallop, is a marine bivalve mollusc belonging to the family Pectinidae and is found in the North-east Atlantic It is distributed from Norway to the Atlantic coast of Spain, and throughout the North Sea¹³. In the UK and in the Republic of Ireland it is distributed along the coast. It grows up to 15 cm, lives up to 20 years, and reaches sexual maturity between 2–4 years of

age¹⁴. It is usually partially buried in sand, at depths ranging from 5 to 150 metres. Three methods are traditionally used for harvesting scallops: diving, bottom trawling, and dredging. The main fishing gear used is the scallop dredge. Among European countries, France and the UK catch the most in terms of value¹⁵. For great Atlantic scallops, current EU legislation specifies a minimum conservation reference size length of 110 mm in the Irish Sea and English Channel, and 100 mm in other fishing areas¹⁶. Gear selectivity measures and minimum landing sizes (MLS) are common measures to ensure that scallops are not harvested before they grow large enough to breed. The minimum marketing size for scallops is 10 cm¹⁷.

⁸ In the further text bivalves refers to "Bivalves and other molluscs and aquatic invertebrates"

⁹ First-sales data updated on 01.02.2022.

¹⁰ Norway and the UK excluded from the analyses.

¹¹ Annex 3: http://eumofa.eu/supply-balance-and-other-methodologies

¹² EUMOFA aggregation for species (Metadata 2, Annex 3: http://eumofa.eu/supply-balance-and-other-methodologies).

¹³ http://species-identification.org/species.php?species_group=mollusca&id=890

¹⁴ http://www.marlin.ac.uk/biotic/browse.php?sp=4236

¹⁵ http://www.fao.org/fishery/species/3516/en

¹⁶ Regulation (EU) 2019/1241 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32019R1241

¹⁷ REGULATION (EU) 2015/812 https://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex%3A32015R0812

We have covered **great Atlantic scallop** in previous *Monthly Highlights*:

First sales: MH 1/2020 (France, Italy, Spain), MH 8/2018 (Belgium, Italy, Portugal), MH6/2017 (France, Italy, Portugal, the United Kingdom), MH8/2016 (Portugal), MH6/2015 (France), MH3/2013 (France)

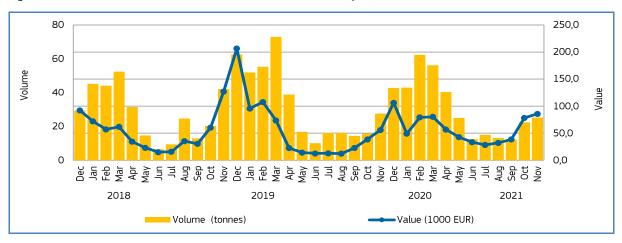
Topic of the month: Species profile on great Atlantic scallop (MH4/2021)

Selected countries

Table 18. COMPARISON OF GREAT ATLANTIC SCALLOP FIRST SALES, MAIN PLACES OF SALE, AND CONTRIBUTION TO OVERALL SALES OF "BIVALVES" IN SELECTED COUNTRIES

Great Atlantic scallop		Changes in Gre scallop first sa 2021 (%)		Contribution of Great Atlantic scallop to total "bivalves" first sales in	Main places of sale in Jan-Nov 2021 in terms of first-sales		
		Compared to Jan-Nov Jan-Nov 2020 2019		Nov 2021 (%)	value		
Belgium	Value	+29%	+14%	96%	Oostende, Zeebrugge, Nieuwpoort.		
	Volume	-2%	+8%	74%	Medwpoort.		
France	Value	+26%	+28%	88%	Dieppe, Port-en-Bessin-		
	Volume	+27%	+23%	88%	Huppain, Saint Quay Portrieux.		
Netherlands	Value	+29%	+19%	48%	Vlissingen, Urk, Scheveningen.		
	Volume	-26%	0%	6%	ocheveringen.		

Figure 20. GREAT ATLANTIC SCALLOP: FIRST SALES IN BELGIUM, DECEMBER 2018 - NOVEMBER 2021

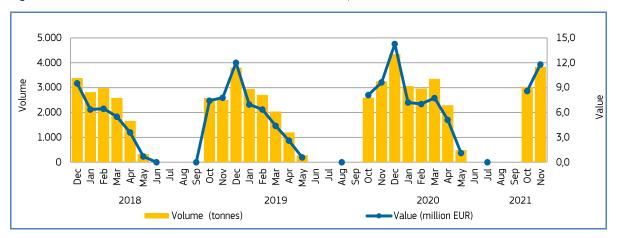


In **Belgium**, from December 2018 to November 2021, first sales of great Atlantic scallop peaked from December to March each year. The highest first-sales volume was observed in March 2020 when 73 tonnes were sold, while the highest first-sales value of EUR 0,2 million was recorded in March 2019.

Figure 21. FIRST SALES: COMPOSITION OF "BIVALVES" (ERS LEVEL) IN BELGIUM, IN VALUE AND VOLUME, NOVEMBER 2021

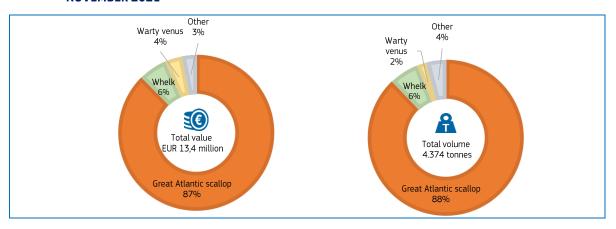


Figure 22. GREAT ATLANTIC SCALLOP: FIRST SALES IN FRANCE, DECEMBER 2018 - NOVEMBER 2021



In **France**, from December 2018 to November 2021, the highest first sales of great Atlantic scallop by volume were observed in December 2020, when 4.342 tonnes were sold. The great Atlantic scallop fishery is mainly active from October to April, while there are no fishing activities during the summer season.

Figure 23. FIRST SALES: COMPOSITION OF "BIVALVES" (ERS LEVEL) IN FRANCE, IN VALUE AND VOLUME, NOVEMBER 2021

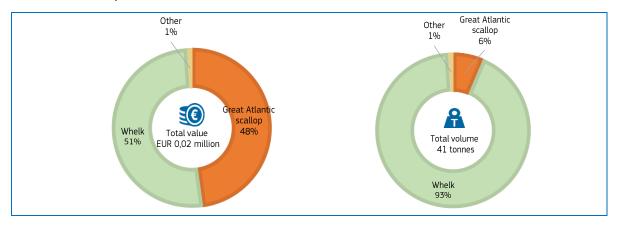


6 15,0 5 12,0 4 9,0 3 Value 6,0 2 3,0 1 0,0 2018 2019 2020 2021 <u>Value (</u>1000 EUR) Volume (tonnes)

Figure 24. GREAT ATLANTIC SCALLOP: FIRST SALES IN THE NETHERLANDS, DECEMBER 2018 - NOVEMBER 2021

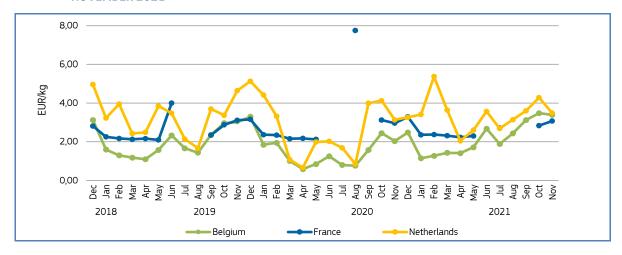
Over the 36 months from December 2018 to November 2021, the highest first-sales volume of great Atlantic scallop in **the Netherlands** occurred in August 2020 and October 2021, when 5 and 3 tonnes were sold, respectively. Due to the lower quantities sold in the Netherlands, first sales tend to fluctuate more often during the year.

Figure 25. FIRST SALES: COMPOSITION OF "BIVALVES" (ERS LEVEL) IN THE NETHERLANDS, IN VALUE AND VOLUME, NOVEMBER 2021



Price trend

Figure 26. GREAT ATLANTIC SCALLOP: FIRST-SALES PRICES IN SELECTED COUNTRIES, DECEMBER 2018 - NOVEMBER 2021



Over the 36-month observation period from November 2018 to November 2021, the weighted average first-sales price of great Atlantic scallop in **the Netherlands** was 2,83 EUR/kg, 7% higher than in **France** (2,64 EUR/kg) and 55% greater than that in **Belgium** (1,82 EUR/kg).

In **Belgium,** in November 2021, the average first-sales price of great Atlantic scallop (3,39 EUR/kg) increased by 67% compared with November 2019. Over the observation period from November 2018 to November 2021, the average price ranged from 0,58 EUR/kg for 39 tonnes in April 2020, to 3,48 EUR/kg for 22 tonnes in October 2021.

In **France**, in November 2021, the average first-sales price of great Atlantic scallop (3,07 EUR/kg) increased by 4% and decreased by 1% compared to the same months in 2020 and 2019, respectively. During the observed period, the lowest average price (2,10 EUR/kg for 336 tonnes) was seen in May 2019, while the highest average price was recorded in August 2021, at 7,75 EUR/kg for 5 kg.

In **the Netherlands**, in November 2021, the average first-sales price of great Atlantic scallop (3,48 EUR/kg) increased by 11% compared to November 2020 and decreased by a quarter compared to November 2019. During the observed period, the lowest average price of 0,66 EUR/kg for 2 tonnes was seen in April 2020, while the highest average price was recorded in February 2021, at 5,37 EUR/kg for 201 kg.

1.7. Focus on Japanese carpet shell





The Japanese carpet shell (*Ruditapes philippinarum*) is an edible species of saltwater clam in the family Veneridae (the Venus clams). It is a marine bivalve mollusc indigenous to the subtropical and temperate coastal seas of the western Pacific, from the South China Sea to the Sea of Okhotsk, as well as parts of the Indian Ocean. It is a high-value fisheries and aquaculture product that is often cultured¹⁸. Overfishing and

irregular yields of the native (European) grooved carpet shell (*Ruditapes decussatus*) led to imports of *R. philippinarum* into European waters. This species was introduced in 1972 through French hatchery production. Additional imports into the United Kingdom from the USA were followed by numerous transfers within European waters for aquaculture purposes (including in Portugal, Ireland, Spain, and Italy)¹⁹. Due to its relatively high fecundity and growth rates, it has come to dominate the most suitable habitats such as coastal lagoons. A planktonic larval stage enables local spread once the species has naturalised. Japanese carpet shell populations are now the most major contributor to clam landings in Europe, and are the focus of intensive public fisheries, competing with aquaculture products in several rearing areas. It is mainly caught in dredge fisheries and occasionally bottom trawl fisheries²⁰. Once harvested, the clams are stored in boxes or bags and transported for mechanical grading. Then they are usually wet stored to purge grit and sand before processing and marketing. In Europe, Japanese carpet shell is mainly sold as a fresh product²¹. In the EU, the species is managed through technical measures set in the EU Regulation²².

We have covered Japanese carpet shell in previous Monthly Highlights:

First sales: MH 1/2019 (France, Italy, Spain).

Selected countries

Table 19. COMPARISON OF JAPANESE CARPET SHELL FIRST SALES, MAIN PLACES OF SALE, AND CONTRIBUTION TO OVERALL SALES OF BIVALVES IN SELECTED COUNTRIES

Japanese carpet shell		Changes in Japa shell first sales (%)	•	Contribution of Japanese carpet shell to total	Main places of sale in Jan-Nov 2021 in terms of first-sales value		
		Compared to Jan-Nov 2020	Compared to Jan-Nov 2019	"bivalves" first sales in Nov 2021 (%)			
Italy	Value	-15%	+23%	3%	Marano Lagunare, Grado, Chioggia.		
	Volume	-29%	+9%	1%	cinoggia		
Portugal	Value	+20%	-10%	6%	Setúbal, Sesimbra, Aveiro.		
	Volume	+30%	0%	8%			
Spain Value		-16%	-32%	20%	Campelo, Cambados, Cabo De Cruz – Boiro.		
	Volume	-43%	-55%	9%	De Cruz Bono.		

¹⁸ https://www.cabi.org/isc/datasheet/61697

 $^{^{19}\,}https://thefishsite.com/articles/cultured-aquatic-species-japanese-carpet-shell$

²⁰ http://fishsizematters.eu/en/species/grooved-carpetshell-and-japanese-carpetshell/

²¹ https://thefishsite.com/articles/cultured-aquatic-species-japanese-carpet-shell

²² EC Regulation (EU) 2019/1241 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02019R1241-20211230

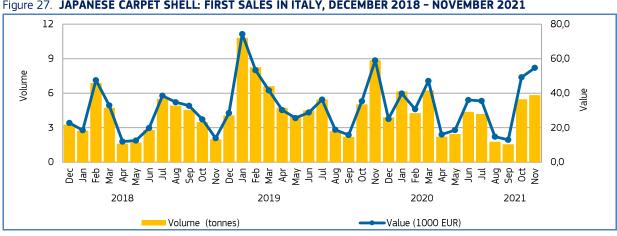
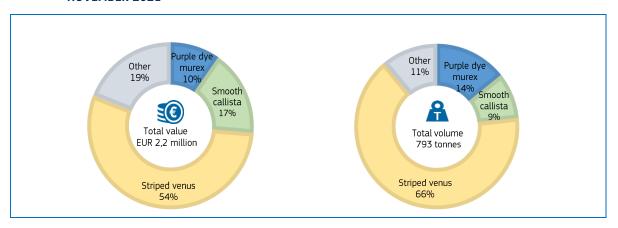
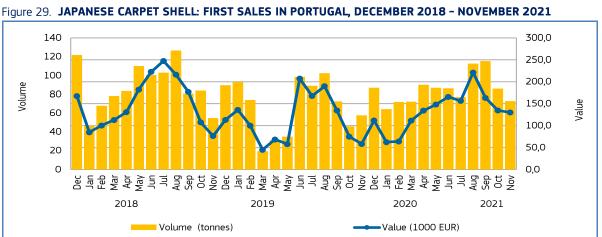


Figure 27. JAPANESE CARPET SHELL: FIRST SALES IN ITALY, DECEMBER 2018 - NOVEMBER 2021

In Italy, over the observed 36-month period (December 2018 - November 2021), the highest first sales (by volume) of Japanese carpet shell occurred in January and November 2020, when 11 tonnes and 9 were sold, respectively. First sales are greatest during the fishery season in winter and spring, while the lowest sales occur during warmer periods.

Figure 28. FIRST SALES: COMPOSITION OF "BIVALVES" (ERS LEVEL) IN ITALY, IN VALUE AND VOLUME, **NOVEMBER 2021**





In Portugal from December 2018 to November 2021, the highest first sales of Japanese carpet shell were registered in August 2019 and December 2018, when 127 and 122 tonnes were sold, respectively. The lowest sales were recorded in March and April 2020 (20 and 31 tonnes, respectively).

Figure 30. FIRST SALES: COMPOSITION OF "BIVALVES" (ERS LEVEL) IN PORTUGAL, IN VALUE AND VOLUME, NOVEMBER 2021

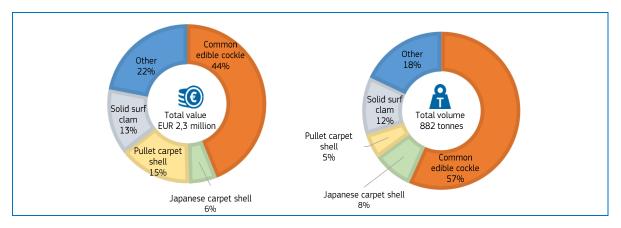
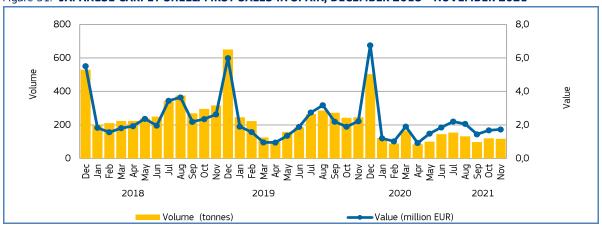
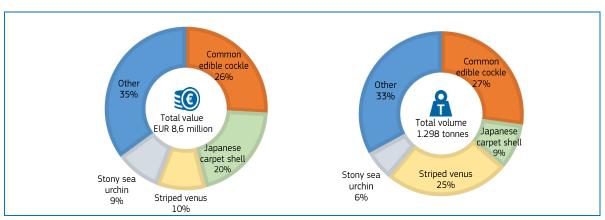


Figure 31. JAPANESE CARPET SHELL: FIRST SALES IN SPAIN, DECEMBER 2018 - NOVEMBER 2021



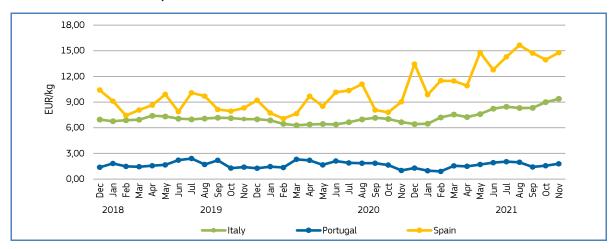
In **Spain**, over the 36-month observation period from December 2018 to November 2021, the highest first sales of Japanese carpet shell were registered in December 2018, 2019, and 2020, when 530, 651, and 503 tonnes were sold, respectively. In Spain in 2021, the Japanese carpet shell fishery recorded lower first sales in terms of volume but higher first sales in terms of average prices, compared to the previous two years analysed.

Figure 32. FIRST SALES: COMPOSITION OF "BIVALVES" (ERS LEVEL) IN SPAIN, IN VALUE AND VOLUME, NOVEMBER 2021



Price trend

Figure 33. JAPANESE CARPET SHELL: FIRST-SALES PRICE IN SELECTED COUNTRIES* (DECEMBER 2018 - NOVEMBER 2021)



Over the 36-month observation period from November 2018 to November 2021, the weighted average first-sales price of Japanese carpet shell in **Spain** was 9,92 EUR/kg. This was five-fold higher than in **Portugal** (1,66 EUR/kg), and 39% greater than in **Italy** (7,12 EUR/kg). The difference in price between the products that originated in the three different countries is linked to the product quality, namely the size and colour of the shell.

In **Italy,** in November 2021, the average first-sales price of Japanese carpet shell was 9,38 EUR/kg, 41% higher than in November 2020, and 34% greater than in November 2019. The lowest price in the past 36 months was registered in March 2020, at 6,29 EUR/kg for 7 tonnes, while the highest price of 9,38 EUR/kg for 6 tonnes was observed in November 2021.

In **Portugal,** in November 2021, the average first-sales price of Japanese carpet shell was 1,79 EUR/kg, representing a 77% increase compared to November 2020 and a 28% increase compared to November 2019. The lowest price experienced in the 36-month observation period was registered in February 2021 at 0,89 EUR/kg for 72 tonnes, while the highest price of 2,40 EUR/kg for 103 tonnes was observed in July 2019.

In **Spain,** in November 2021, the average first-sales price of Japanese carpet shell was 14,78 EUR/kg. This was 64% higher than in November 2020 and 78% above November 2019. Between December 2018 and November 2021, the lowest price was registered in February 2020 at 7,07 EUR/kg for 223 tonnes, while the highest price of 15,65 EUR/kg for 132 tonnes was observed in August 2021.

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 "bivalves", and the featured species are frozen mussels, even in shell, from New Zealand, live, chilled or fresh scallops from the United States, and prepared or preserved mussels in airtight containers (excl. smoked) from Chile. The three randomly selected species this month are fresh or chilled fillets of swordfish from Chile, prepared or preserved filets of mackerel from Morocco, and prepared or preserved eels, whole or in pieces from China.

Data analysed in the section "Extra-EU imports" are extracted from EUMOFA, as collected from the European Commission²³.

Table 20. **EVOLUTION OF WEEKLY PRICE AND VOLUME OF THE THREE MOST RELEVANT FISHERIES AND AQUACULTURE PRODUCTS IMPORTED INTO THE EU**

Extra-EU Imports	j	Week 02/2022	Preceding 4- week average	Week 02/2021	Notes
Fresh whole Atlantic salmon imported from Norway (Salmo salar, CN code 03021400)	Price (EUR/kg)	6,90	6,66 (+4%)	4,73 (+46%)	In 2021, prices ranged from 4,64 to 6,94 EUR/kg and had an upward trend, in contrast with a downward trend over the past three years. On average, in 2021, prices were below 6,00 EUR/kg. The upward trend continued at the beginning of 2022.
	Volume (tonnes)	12.813	11.802 (+9%)	15.321 (-16%)	Volumes ranged from 6.189 to 19.090 tonnes and had an upward trend in 2021, in line with the past three years. On average, in 2021, weekly volumes were below 15.000 tonnes.
Frozen Alaska pollock fillets imported from China (Theragra chalcogramma, CN code 03047500)	Price (EUR/kg)	3,19	3,07 (+4%)	2,45 (+31%)	Over the past three years, weekly prices showed a stable trend. However, in 2021, they exhibited an upward trend. This was also seen in the first two weeks of 2022, when they rose above 3,00 EUR/kg.
civ code 050 1/ 500/	Volume (tonnes)	2.425	2.763 (–12%)	2.681 (-10%)	In 2021, volumes fluctuated from 1.417 to 3.686 tonnes. They had an upward trend, in contrast with the trend over the past three years. On average, the weekly supply was around 2.400 tonnes.
Frozen tropical shrimp imported from Ecuador (genus <i>Penaeus</i> , CN code 03061792)	Price (EUR/kg)	6,36	6,36 (0%)	5,28 (+20%)	Weekly prices had an upward trend in 2021, in contrast with a downward trend over the past three years. In 2021, weekly prices were around 5,60 EUR/kg, on average. In 2022, they were above 6,00 EUR/kg.
	Volume (tonnes)	2.127	2.697 (–21%)	1.182 (+80%)	Volume showed an upward trend in 2021, in line with the trend over the past three years. Weekly volumes fluctuated from 1.118 to 4.925 tonnes. On average, the weekly supply was around 2.800 tonnes.

²³ Last update: 02.02 2022

Figure 34. IMPORT PRICE OF FRESH AND WHOLE ATLANTIC SALMON FROM NORWAY, 2019–2022

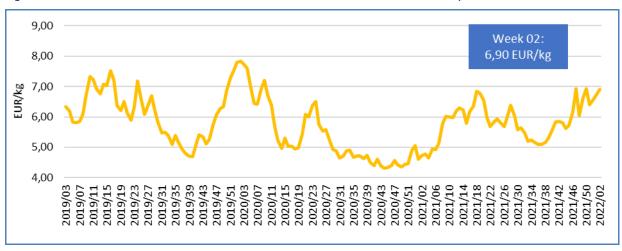


Figure 35. IMPORT PRICE OF FROZEN ALASKA POLLOCK FILLETS FROM CHINA, 2019–2022



Figure 36. IMPORT PRICE OF FROZEN TROPICAL SHRIMP FROM ECUADOR, 2019–2022



Table 21. **EVOLUTION OF WEEKLY PRICE AND VOLUME OF THIS MONTH'S THREE FEATURED COMMODITY PRODUCTS IMPORTED INTO THE EU**

Extra-EU Imports		Week 02/2022	Preceding 4- week average	Week 02/2021	Notes
Frozen mussels, even in shell, imported from New Zealand (<i>Perna</i> spp., CN code 03073290)	Price (EUR/kg)	5,41	5,57 (-3%)	5,67 (-5%)	Downward trend over the past three years. Prices fluctuated from 1,65 EUR/kg (in week 34 of 2020) to 6,96 EUR/kg (week 41 of 2019). Price drop did not correlate with an increase in supply from the previous week.
	Volume (tonnes)	31	77 (–60%)	112 (–73%)	Downward trend over the past three years. High fluctuations in supply from 0,3 tonnes (in week 52 of 2020) to 1.958 tonnes (week 01 of 2021). Most of the weekly supply was less than 100 tonnes.
Live (fresh or chilled) scallops, incl. queen scallops, of the genera Pecten, Chlamys or Placopecten, even in		26,11*	41,60** (-37%)	26,11*** (0%)	Upward trend over the past three years. Price ranged from 17,85 EUR/kg (in week 18 of 2020) to 48,96 EUR/kg (week 20 of 2020). Price spike did not correlate with a decrease in supply from the previous week
shell imported from		4*	1** (+326%)	4*** (0%)	Downward trend over the past three years. Fluctuations in supply, from 0,027 tonnes (in week 12 of 2020) to 22 tonnes (week 51 of 2019). Most of the weekly volumes were less than 5 tonnes.
	Price (EUR/kg)	1,95	2,58 (–25%)	2,35 (–17%)	Stable trend from 2019 to 2022, with prices fluctuating from 1,63 EUR/kg (in week 21 of 2021) to 4,47 EUR/kg (week 01 of 2021). 75% of the weekly prices were over 2,00 EUR/kg.
from Chile (CN code 16055310)	Volume (tonnes)	20	53 (-63%)	65 (–70%)	Downward trend from 2019 to 2022. High fluctuations in supply from 0,040 (week 50 of 2021) to 484 tonnes (week 31 of 2021); most volumes were over 100 tonnes.

Data refers to week 52 of 2021 (the most recent available); ** data refers to weeks 48 to 51 of 2021; ***data refers to week 52 of 2020

Figure 37. IMPORT PRICE OF FROZEN MUSSELS, EVEN IN SHELL, FROM NEW ZEALAND, 2019–2022

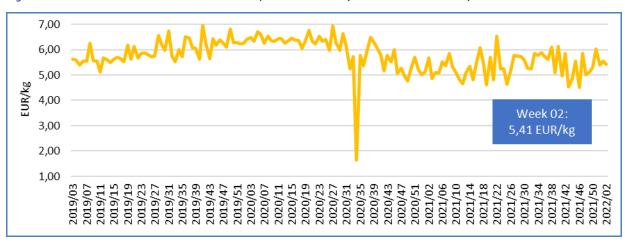


Figure 38. IMPORT PRICE OF LIVE (FRESH OR CHILLED) SCALLOPS, INCL. QUEEN SCALLOPS, FROM THE UNITED STATES, 2019–2022

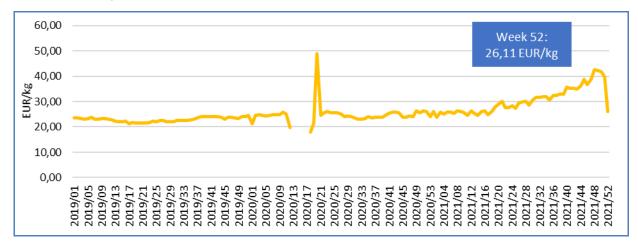
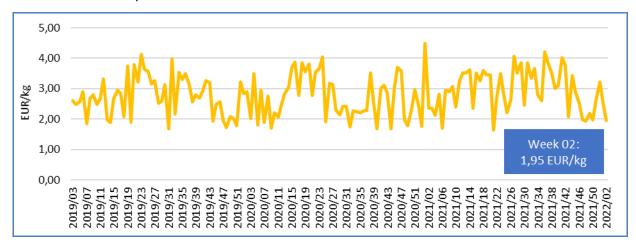


Figure 39. IMPORT PRICE OF PREPARED OR PRESERVED MUSSELS IN AIRTIGHT CONTAINERS (EXCL. SMOKED)
FROM CHILE, 2019–2021



Since the beginning of 2021, both price and volume of frozen mussels from New Zealand showed an upward trend. Price ranged from 4,49 to 6,53 EUR/kg, and weekly supply from 2 to 1.958 tonnes.

In 2021, both weekly price and volume of live (fresh or chilled) scallops, incl. queen scallops, from the United States, showed an upward trend. Price ranged from 23,72 to 42,65 EUR/kg, and volume from 0,4 to 4,3 tonnes.

Weekly price of prepared or preserved mussels in airtight containers from Chile showed a stable trend since the beginning of 2021. At the same time, weekly volume showed a downward trend. Price ranged from 1,63 to 4,47 EUR/kg, and volume from 0,040 to 484 tonnes.

Table 22. **EVOLUTION OF WEEKLY PRICE AND VOLUME OF EU IMPORTS OF THREE OTHER FISHERIES AND AQUACULTURE PRODUCTS RELEVANT TO THE EU MARKET**

Extra-EU Impo	rts	Week 52/2021	Preceding 4- week average	Week 52/2021	Notes
Fresh or chilled swordfish fillets imported from Chile (Xiphias gladius, CN code	Price (EUR/kg)	12,33*	11,87** (+4%)	10,90*** (+13%)	Upward trend from 2019 to 2022. Prices ranged from 8,82 (week 45 of 2019) to 12,39 EUR/kg (week 39 of 2021). Most of the weekly prices were less than 10 EUR/kg.
03044500)	Volume (tonnes)	13*	15** (–13%)	9*** (+55%)	Fluctuations in supply, varying between 2 tonnes (in weeks 45 of 2019 and 08 of 2020) and 477 tonnes (week 32 of 2019). Overall downward trend.
Prepared or preserved mackerel fillets imported from Morocco (Scomber scombrus, Scomber	Price (EUR/kg)	11,58	11,93 (–3%)	n/a	Upward trend over the past three years. Some price spikes were related to a drop in supply from the previous week. Price fluctuations, varying from 0,83 EUR/kg (in week 37 of 2021) to 12,89 EUR/kg (week 50 of 2021).
japonicus, CN code 16041511)	Volume (tonnes)	0,02	0,11 (-78%)	n/a	Downward trend over the past three years. High fluctuations in supply from 0,002 tonnes (in week 37 of 2021) to 45 tonnes (week 17 of 2019).
Prepared or preserved eels, whole or in pieces, imported from China (CN code 16041700)		17,65	18,54 (–5%)	14,11 (+25%)	Slight upward trend from 2019 to 2021, with prices ranging from 5,99 EUR/kg (in week 42 of 2019) to 53,30 EUR/kg (week 33 of 2021). The price spike correlated with a significant decrease in supply from the previous week Most of the prices were less than 20,00 EUR/kg.
	Volume (tonnes)	17	32 (-48%)	10 (+67%)	From 2019 to 2021, volumes ranged between 0,004 tonnes (in week 13 of 2020) and 70 tonnes (week 38 of 2021), with an overall downward trend.

Data refers to week 41 of 2021 (the most recent available); data refers to weeks 36 to 39 of 2021; data refers to week 41 of 2020.

Figure 40. IMPORT PRICE OF FRESH OR CHILLED SWORDFISH FILLETS FROM CHILE, 2019–2022

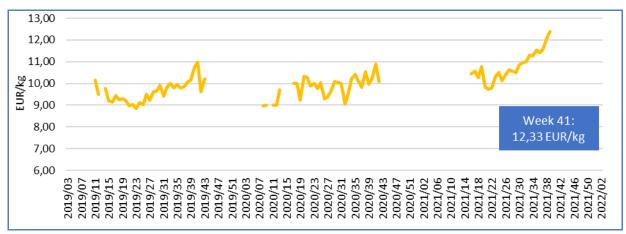


Figure 41. IMPORT PRICE OF PREPARED OR PRESERVED MACKEREL FILLETS FROM MOROCCO, 2019–2021

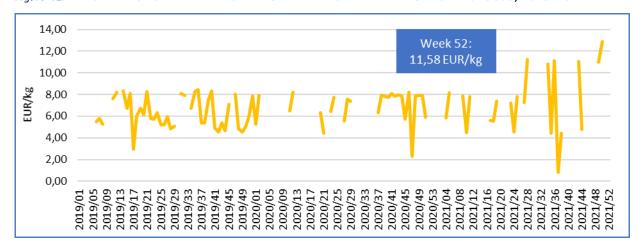
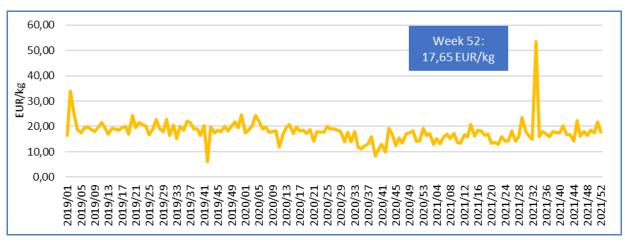


Figure 42. IMPORT PRICE OF PREPARED OR PRESERVED EELS, WHOLE OR IN PIECES, FROM CHINA, 2019–2022



Both price and volume of fresh or chilled swordfish fillets from Chile exhibited an upward trend in 2021. Price ranged from 9,67 to 12,39 EUR/kg. On average, the weekly supply was around 27 tonnes.

Since the beginning of the year, both price and volume of prepared or preserved mackerel fillets from Morocco demonstrated an upward trend. Volume ranged from 0,002 to 30 tonnes.

In 2021, both price and volume of prepared or preserved eels from China exhibited an upward trend. Price ranged from 12,89 to 53,50 EUR/kg, and supply from 0,6 to 70 tonnes.

3. Consumption

3.1. HOUSEHOLD CONSUMPTION IN THE EU

Data analysed in the section "Consumption" are extracted from EUMOFA, as collected from Europanel²⁴.

In November 2021 compared with November 2020, household consumption of fresh fisheries and aquaculture products increased in both volume and value only in Denmark (+3%, and +8%, respectively). In Italy, value increased but volume decreased. In the rest of the countries analysed, consumption decreased. The increase in Denmark was due mainly to halibut (+83% in volume, +130% in value), and salmon (+2% in volume, +14% in value). In Italy, squid (-48%) and anchovy (-39%) were the main contributors to the volume decrease, whereas European seabass (+50%) contributed to the value increase. Portugal and Sweden were among the Member States registering the highest decrease in consumption. Cod contributed the most to the decrease in Sweden (-52% in volume, -42% value), whereas in Portugal, mackerel was the main cause (-49% in volume, -37% in value). Cod was among the species that contributed most heavily to the decrease in volume and value in Ireland (-24%, -35%, respectively) and France (-31% and -28%, respectively). In Poland, mackerel made the greatest contribution to the decrease in consumption volume and value (-18% and -15%, respectively). Mussel *Mytilus* spp. was the main contributor to volume and value decrease in Germany (-53% and -50%, respectively) and the Netherlands (-59% and -61%, respectively).

Table 23. NOVEMBER OVERVIEW OF THE REPORTING COUNTRIES (volume in tonnes and value in million EUR)

Country	Per capita consumption 2019*	n November 2019		Novemb	November 2020		October 2021		er 2021	Change from November 2020 to November 2021	
	(live weight equivalent, LWE) kg/capita/year	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Denmark	42,56	921	15,44	1.041	16,80	1.085	17,97	1.073	18,21	3%	8%
France	33, 26	17.596	198,30	20.911	229,63	18.344	207,20	17.463	200,12	16%	13%
Germany	13,08	5.618	73,30	7.059	96,29	5.405	75,49	5.688	77,03	19%	20%
Hungary	6,28	333	1,63	417	2,54	409	2,82	320	2,09	23%	18%
Ireland	25,50	914	13,19	1.202	15,41	1.106	16,55	925	14,19	23%	8%
Italy	31,21	24.451	265,92	24.224	251,61	24.179	269,26	22.933	257,05	5%	2%
Netherlands	20,60	2.401	37,52	3.091	44,43	2.894	43,65	2.501	41,75	19%	6%
Poland	13,11	3.942	25,28	4.152	26,55	3.792	25,86	3.799	26,17	9%	1%
Portugal	59,91	5.478	36,16	6.810	47,45	5.883	41,45	5.145	38,37	24%	19%
Spain	46,02	50.471	409,12	57.453	458,51	49.643	426,77	48.004	423,47	16%	8%
Sweden	25,16	774	10,38	923	11,07	925	13,03	697	9,80	24%	11%

*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/

²⁴ Last update: 08.02.2022.

Over the past three years, the average household consumption of fresh fisheries and aquaculture products for November (in volume) has been below the annual average in most of the Member States analysed. The exceptions are France, Portugal, Spain, and Sweden, where it was above average. In terms of value, the November average household consumption was above the annual average only in France and Spain.

The most recent weekly consumption data (up to **week 8 of 2022**) are available on the EUMOFA website and can be accessed **here**.

3.2. Miscellaneous tuna

Habitat: Saltwater species, found across the world's oceans. **Production method:** Mostly caught, very small quantities farmed. **Main consumers in the EU:** Spain, France, Portugal, Italy.

Presentation: Whole, fillets.

Preservation: Fresh and chilled, frozen, and canned.

3.2.1. Overview of household consumption in Spain

Spain is one of the EU Member States where the per capita apparent consumption²⁵ of fisheries and aquaculture products is among the highest in the EU. In 2019, this amounted to 46,02 kg and remained stable compared to 2018. This is 92% above the EU average (23,97 kg LWE).

Tuna is the most consumed species in the EU reaching 3,10 kg LWE in 2019. This was an increase of 2% compared to 2018. It is mostly caught, although 0,86% is farmed. The most consumed tuna products on the EU market are prepared and preserved. EU consumption of tuna is largely supported by imports but there is also internal production, mainly consisting of Spanish and French catches²⁶.

Over the past three years (December 2018 – November 2021), total Spanish household consumption of miscellaneous tunas, mainly skipjack tuna, yellowfin tuna, and bigeye tuna, was 49.394 tonnes. Spanish consumers spent an average of 10,50 EUR per month on a kilogram of miscellaneous tunas.

²⁵ "Apparent consumption" is calculated using a supply balance sheet that provides an estimate of the supply of fisheries and aquaculture products available for human consumption at the 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, the latter also requiring the adjustment of abnormal trends due to the higher impact of stock changes.

²⁶ https://eumofa.eu/documents/20178/477018/EN_The+EU+fish+market_2021.pdf/

Figure 43. PRICES OF MISCELLANEOUS TUNA PURCHASED BY SPANISH HOUSEHOLDS

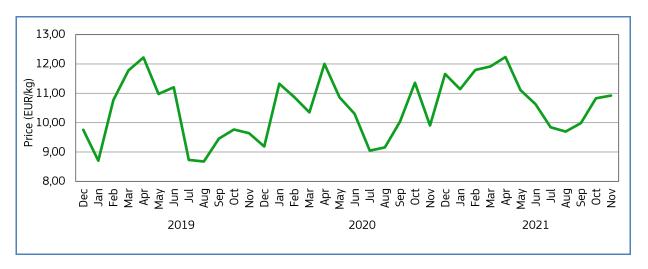
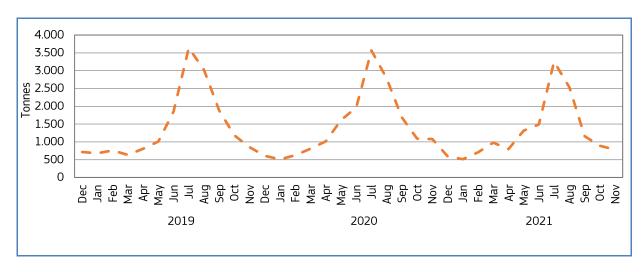


Figure 44. HOUSEHOLD PURCHASES OF MISCELLANEOUS TUNA IN SPAIN



3.2.2. Household consumption trends in Spain

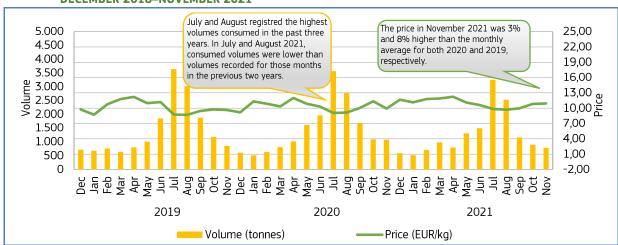
Long-term trend (December 2018 to November 2021): Upward trend in both price and in volume.

Yearly average price: 10,26 EUR/kg (2018), 10,09 EUR/kg (2019), 10,57 EUR/kg (2020). **Yearly consumption**: 16.195 tonnes (2018), 16.925 tonnes (2019), 17.342 tonnes (2020).

Short-term trend (January to November 2021): downward trend in price, upward trend in volume.

Average price: 10,92 EUR/kg. **Consumption**: 14.414 tonnes.

Figure 45. RETAIL PRICE AND VOLUME OF MISCELLANEOUS TUNA PURCHASED BY HOUSEHOLDS IN SPAIN, DECEMBER 2018—NOVEMBER 2021



Case study — Fisheries and aquaculture in Tunisia

4.1 Introduction

Tunisia is a country located in North Africa. It is bounded by Algeria to the west and southwest, and by Libya to the southeast, while the Mediterranean Sea lies to the east and north of the country. Tunisia had a population of 11,7 million in 2020, and the majority of people live along the coast²⁷. With 1,300 km of coastline along the Mediterranean Sea, an exclusive economic zone of 80.000 km², and 105.200 ha of lagoons, fishing is an important source of income and employment for the country. Fishing is deeply embedded in Tunisian culture and traditions, particularly among coastal populations. However, in 2020, the value of the fisheries and aquaculture sector represented just 4% of the value of the total agriculture sector in Tunisia. The fisheries sector currently faces serious challenges due to concerns for the sustainability of fisheries resources in the Mediterranean, while aquaculture has strong potential for growth based on the intensification of marine farms with cage systems. However, spatial conflicts, environmental sustainability concerns, and social acceptance constitute future challenges for the sector's growth. Fisheries and aquaculture products are an important source of protein for a large part of the population. The average Tunisian consumes 11,1 kg of fish and seafood on an annual basis²⁸. The processing industry is focused mainly on canned tuna and sardines, and frozen molluscs and crustaceans, which are largely exported to the EU.

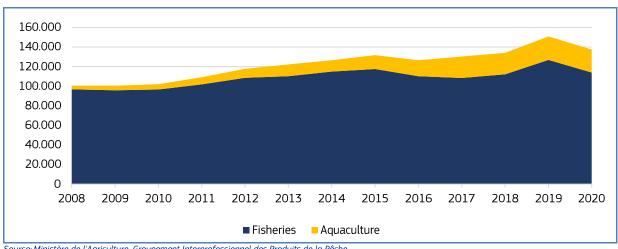
4.2 Fisheries and aquaculture production

In Tunisia, fisheries and aquaculture production combined grew from 100.578 tonnes in 2008 to 137.430 tonnes in 2020. During this period, fisheries production increased by 18%, while aquaculture production significantly increased from just under 4.000 tonnes to almost 24.000 tonnes.



Source: https://commons.wikimedia.org/wiki/File:Tunisia Regions_map.pngCommons

Figure 46. CONTRIBUTION OF AQUACULTURE AND FISHERIES IN TOTAL PRODUCTION (volume in tonnes)



Source: Ministère de l'Agriculture. Groupement Interprofessionnel des Produits de la Pêche.

²⁷ Statistics Tunisia (*Statistiques Tunisie*). Available at: http://www.ins.tn/statistiques/111

²⁸ National observatory of Agriculture (Observatoire national de l'Agriculture). Available at: http://www.onagri.tn/uploads/images/filieres/pecheagua/2021/Fiche-peche-aguaculture.pdf

The coastline is divided into three fishing zones: north, east, and south. The Gulf of Gabès in the south of the country is a particularly rich fishing area. There are 41 fishing ports with a combined fishing capacity of 150.000 tonnes/year, including ten industrial fishing ports, 23 coastal ports, and eight landing areas for artisanal fishing vessels. Two additional ports are currently under construction²⁹.

The fishing fleet in Tunisia comprised of 14.747 fishing vessels in 2019, of which 12.993 were active. Vessels involved in coastal fishing³⁰ constitute the greatest share of the fishing fleet (92%), followed by trawlers (3%), vessels targeting sardines (3%), vessels targeting tuna (43 vessels in 2019, representing less than 1% of the fishing fleet), and other vessels (1%). More than half of the fishing vessels are not motorised³¹.

In terms of employment, the latest statistics show that almost 50.000 people were directly employed in the fisheries and aquaculture sector in Tunisia in 2019. A large majority were employed in the southern part of the country, where most of Tunisia's fishing activities are concentrated (in terms of production volume and active vessels). Coastal fishing employs 73% of total employment, followed by vessels targeting sardine and trawlers with 11% of employment each. 2% of total employees are involved in the aquaculture sector and 3% involved in the other fishing types³².

Fisheries production

Total capture production has increased in recent years, reaching almost 110.000 tonnes in 2019 according to the Food and Agriculture Organization (FAO), and almost 108.000 tonnes in 2020, according to national statistics³³. National statistics provide data on fisheries production by fishing type. Small pelagic fishing is the most important in terms of volume, representing 46% of the total fisheries production volume, followed by coastal fishing (31%), and demersal trawling (20%). In value terms, coastal fishing is highest, representing 37% of the total fisheries production value, followed by demersal trawling (33%). Small pelagic fishing ranks third (17%), followed by tuna fishing (11%). The most valuable species caught by the Tunisian fishing fleet are octopus, cuttlefish, tuna, and shrimps³⁴.

Table 24. CATCHES BY FISHING TYPE IN TUNISIA (volume in tonnes)

Fishing Type	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Small pelagic fishing	48.988	49.067	44.208	50.863	51.439	51.833	52.480	54.487	47.378	49.855
Coastal fishing	23.578	22.662	26.430	24.705	28.577	27.734	31.812	32.066	32.347	33.847
Demersal trawler fishing	19.636	19.875	22.133	22.618	25.643	26.839	26.873	27.252	26.611	21.246
Tuna fishing	2.679	2.259	1.937	1.924	1.313	1.822	1.364	1.403	1.562	2.053
Mollusc bivalve fishing	536	473	433	690	770	1.102	1.635	1.386	1.547	734
Pelagic trawler fishing	780	924	1026	750	396	440	360	289	119	70
Total	6.255	95.311	96.225	101.597	108.184	109.825	114.601	116.967	109.655	107.897

Source: Ministère de l'Agriculture. Groupement Interprofessionnel des Produits de la Pêche.

The fisheries sector is currently facing challenges due to concerns related to the sustainability of fisheries resources. In the Mediterranean Sea, 83% of the 35 assessed stocks are overexploited and a further 75% of stocks are not assessed³⁵. In addition, the sector faces a strong threat from Illegal, Unreported and Unregulated (IUU) fishing. According to a recent study

²⁹ Fishery and Aquaculture Country profile of Tunisia. Available at: https://www.fao.org/fishery/en/facp/222/fr

³⁰ According to national legislation, coastal fishing corresponds to fishing activities taking place within the depth limit of 50 m in the South region and 3 miles in the North and East and using passive gear.

³¹Ministère de l'Agriculture. Groupement Interprofessionnel des Produits de la Pêche and Observatoire National de l'Agriculture. Available at: http://www.onagri.nat.tn/articles?id=7

³² Ministère de l'Agriculture. Centre Technique d'Aquaculture. Available at: https://www.ctaqua.tn/2021/04/07/la-peche-en-tunisie/

³³ Ministère de l'Agriculture. Centre Technique d'Aquoculture. Available at: https://www.ctaqua.tn/2021/04/07/la-peche-en-tunisie/

³⁴ Ministère de l'Agriculture, des Ressources Hydrauliques et de la Pêche. Statistics available at: http://www.agridata.tn/fr/group/production-agricole

³⁵ Scientific, Technical and Economic Committee for Fisheries (STECF). Monitoring the performance of the Common Fisheries Policy (STECF-Adhoc-21-01).

2018 2019

carried out by the public authority responsible for fisheries in Tunisia, 4.524 cases of IUU fishing were reported in the period between 2015 and 2018³⁶.

Aquaculture production

10.000

5.000

O

2008

Aquaculture production has grown steadily in recent years, rising from 3.738 tonnes in 2008 to 23.553 tonnes in 2020^{37} . This growth was mainly driven by an increase in gilthead seabream (*Sparus aurata*) production, which rose from less than 2.500 tonnes to over 18.000 tonnes during the same period³⁸.

30.000 25.000 20.000 20.000 16.323 14.231 11.964 11.637

9.151

7.261

2011

Figure 47. **EVOLUTION OF AQUACULTURE PRODUCTION IN TUNISIA (volume in tonnes)**

Source: Ministère de l'Agriculture. Groupement Interprofessionnel des Produits de la Pêche.

2010

3.738 ^{4.692} ^{5.437}

2009

The aquaculture sector in Tunisia comprises the following activities³⁹:

• **Marine finfish production** (mainly sea bass and seabream): Production of both species represents the largest share of Tunisian aquaculture production. In 2019, together they accounted for 93% of the total aquaculture production in Tunisia (versus 70% in 2010)⁴⁰. Marine finfish aquaculture is practiced in concrete facilities with a fish density of 60kg/m² ⁴¹ or in floating cages at sea. There are three hatcheries, one semi-intensive farm, three intensive farms using tanks and raceways, and 24 farms in sea cages (recent years have been marked by the expansion of floating and submersible cages). The main share of production is concentrated on the eastern shore of the country in the vicinity of Monastir governorate.

2012 2013 2014 2015 2016 2017

- **Tuna fattening**⁴². This activity involves the fattening of Atlantic bluefin tuna (*Thunnus thynnus*) captured in the wild or imported. It first arose in 2003. Four farms currently conduct tuna fattening in Tunisia.
- Marine shellfish production: Production is mainly of Mediterranean mussels (Mytilus galloprovincialis) and
 Pacific oyster (Crassostrea gigas). There are 15 active farms, most of which are located in northern Tunisia,
 particularly in the lagoon of Bizerte. Shellfish production uses both breeding tables and floating lines. The sector

⁴¹ Global Agriculture Information Network. Aquaculture Industry Small but growing. 2017.

https://apps.fas.usda.gov/newgainapi/api/report/downloadreportbyfilename?filename=Aquaculture%20Industry%20Small%20but%20Growing_Tunis_Tunisia_5-31-2017.pdf

³⁶ Rapport de l'étude préparatoire pour le projet de construction de navires de surveillance pour la gestion des ressources halieutiques en République Tunisienne. 2020. Ministère de l'Agriculture, Direction Générale des Pêches et de l'Aquaculture. Available at: https://docplayer.fr/189315508-Republique-tunisienne-ministère-de-l-agriculture-direction-generale-des-peches-et-de-l-aquaculture.html

³⁷ Ministère de l'Agriculture, des Ressources Hydrauliques et de la Pêche. Statistics available at: http://www.agridata.tn/fr/group/production-agricole ³⁸ Ibidem.

³⁹ Centre Technique d'Aquaculture. 2019 annual report available at: https://www.ctaqua.tn/wp-content/uploads/2020/03/RAPPORT2019.pdf, Global Agriculture Information Network. Aquaculture Industry Small but growing. 2017. Available at:

 $https://apps.fas.usda.gov/newgainapi/api/report/downloadreportbyfilename? filename = Aquaculture \% 20 Industry \% 20 Small \% 20 Dut \% 20 Growing _Tunis _Tunisia _ 5-31-2017.pdf$

⁴⁰ FAO Fish Stat.

⁴² An article on bluefin tuna fattening industry in the EU was published in EUMOFA monthly highlights No. 9/2021, available at: https://eumofa.eu/documents/20178/475321/MH9+2021+EN.pdf#page=42

faces challenges with pollution, and production consistently remained below 200 tonnes/year between 2010 and 201943

- Inland aquaculture production: There are two types of inland aquaculture in Tunisia, detailed below:
 - 13 farms use dams for aquaculture production, where alevins of fish species such as thinlip grey mullet (Liza ramada), common carp (Cyprinus carpio), sander (Stizostedion lucioperca), and flathead grey mullet (Mugil cephalus) are incorporated behind dams.
 - 5 farms use thermal waters for the production of Nile Tilapia (Oreochromis niloticus). Nile Tilapia production was below 50 tonnes/year during the period between 2010 and 2019⁴⁴.
- **Algae production**: There are four algae farms in Tunisia. Production mainly comprises Spirulina (*Arthrospira spp.*), which is a technically difficult process to master. FAO statistics show that Spirulina production increased from 35 tonnes to 140 tonnes between 2016 and 2019⁴⁵.
- There are also some projects at research stage with the aim of diversifying aquaculture production. These projects concern shrimp (*Penaeus vannamei*) production in semi-intensive systems and algae (*Gracilaria*) production.

Overall, aquaculture in Tunisia is primarily focused on marine finfish production (particularly seabream), and has not yet reached its full potential. The Tunisian authorities have established national strategies for the development of aquaculture with quantified goals and targets. However, these targets (the 2020 target was approximately 29.900 tonnes) have not been achieved.

4.3 **Processing and marketing**

The fisheries and aquaculture processing industry in Tunisia generated an estimated 47.722 tonnes (net product weight) in 2019, which marked a significant increase in processing compared to 2010 (21.908 tonnes). Processing activities in Tunisia mainly involve the freezing and canning of tuna and sardines, which in 2019 constituted 76% of the total volume of processed products⁴⁶.

Tunisia's fisheries and aquaculture processing industry comprises the following activities⁴⁷:

- Canning of sardine, tuna, and more recently anchovy: There are 19 specialised canning companies in Tunisia. In 2019, 29.092 tonnes of canned tuna were produced, which represented a significant increase in comparison to 2010 (7.128 tonnes). The canning industry mainly uses imported raw products, and canned tuna largely goes to the national market. Canned sardine production almost doubled between 2010 and 2019 to reach 7.300 tonnes in 2019.
- Freezing (cuttlefish, squid, shrimps, and octopus): 213 enterprises specialise in the freezing of fisheries and aquaculture products. In 2019, these businesses produced 4.998 tonnes of frozen cuttlefish and squid, 3.438 tonnes of frozen shrimps, and 2.894 tonnes of frozen octopus. Frozen crustaceans and molluscs are mainly exported to European countries (predominantly Italy and Spain). More recently, with the development of blue crab fisheries, these companies have started to freeze and export crabs for export to Asian markets.
- Salting: The process of salting is mainly used for local, traditional products such as dried octopus, salted and dried sardine and sardinella, and salted anchovies.

⁴³ FAO FishStat.

⁴⁴ Ibidem. 45 Ibidem.

⁴⁶ Ibidem.

⁴⁷ Ministère de l'Agriculture. Groupement Interprofessionnel des Produits de la Pêche.

Table 25. PRODUCTION OF PROCESSED FISHERIES AND AQUACULTURE PRODUCTS IN TUNISIA (volume of net product weight in tonnes)

Products	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Tunas, skipjack, and Atlantic bonito (canned)	7.128	8.242	14.165	10.937	12.459	13.387	16.813	23.062	28.190	29.092
Sardines, sardinella, and brisling or sprats (canned)	3.662	7.114	12.282	9.174	9.922	10.270	7.800	5.290	7.390	7.300
Cuttlefish and squid (frozen)	5.523	5.883	4.400	6.000	8.203	6.240	3.900	3.600	6.000	4.998
Other shrimps and prawns, with or without shells (frozen)	2.909	3.306	3.851	4.500	5.371	4.758	4.120	3.500	2.900	3.438
Octopus (frozen)	2.686	5.974	4.100	3.500	8.334	5.802	2.980	2.860	3.377	2.894
Other fish, salted or unsalted but not smoked (dried)	-	-	-	-	-	-	-	2.000	-	-
Total	21.908	30.519	38.798	34.111	44.289	40.457	35.613	40.312	47.857	47.722

Source: FAO Fish STAT.

4.4 Exports and imports

Between 2011 and 2020, Tunisian exports of fisheries and aquaculture products decreased by 23% to hit 23.668 tonnes in 2020. Imports increased by 35% from circa 43.500 tonnes to almost 59.000 tonnes over the same period, due to an increase in demand for fisheries and aquaculture products⁴⁸. The decrease in trade in 2020 (-16% for exports and -12% for imports) could be explained by the boarder shutdowns in March 2020 related to the COVID-19 crisis outbreak.

The EU is the main market for Tunisian exports of fisheries and aquaculture products (the EU accounted for 50% of the Tunisian exports of fisheries and aquaculture products in 2020). This can be explained by the geographical proximity of Italy and Spain, the trade tariff advantages obtained from the commercial agreement between Tunisia and the EU⁴⁹, and the solid and historic relationships between Tunisian and European operators (i.e. Italian and Spanish operators). Recently, markets in the Middle East have become important export destinations for farmed fish (sea bass and seabream) boasting good prices, despite the higher costs of cargo transport.

⁴⁸ Ministère de l'Agriculture, des Ressources Hydrauliques et de la Pêche. Statistics available at: http://www.agridata.tn/fr/group/production-agricole

⁴⁹ https://ec.europa.eu/trade/policy/countries-and-

 $regions/countries/tunisia/\#; \text{\simtext=The} \% 20EU\% 20 and \% 20Tunisia\% 20 have \% 20 concluded \% 20 an \% 20 Association \% 20 Agreement \% 20 Cwhich, free \% 20 of \% 20 Cwhich, free \% 20 cwhich,$

70.000 60.000 50.000 Volume 40.000 30.000 20.000 10.000 0 2011 2013 2014 2015 2016 2017 2018 2019 2020 2012 ■ Exports Imports

Figure 48. TUNISIAN IMPORTS AND EXPORTS OF FISHEIRES AND AQUACULTURE PRODUCTS BETWEEN 2011 AND 2020 (volume in net product weight)

Source: Ministère de l'Agriculture. Groupement Interprofessionnel des Produits de la Pêche.

Foreign trade of fisheries and aquaculture products mainly comprise fresh and frozen fish (93% of imports and 36% of exports from Tunisia in volume terms in 2020). Crustaceans accounted for 28% of export volume, followed by canned products (23%), and cephalopods such as cuttlefish and octopus (13%).

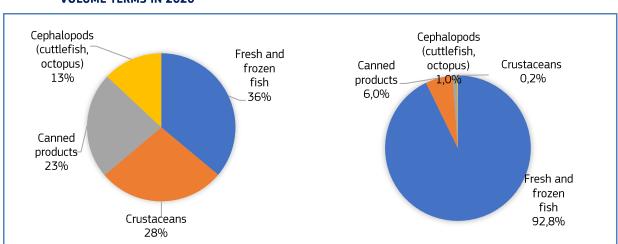


Figure 49. BREAKDOW OF TUNISIAN EXPORTS (left) AND IMPORTS (right) BY PRODUCT CATEGORY IN **VOLUME TERMS IN 2020**

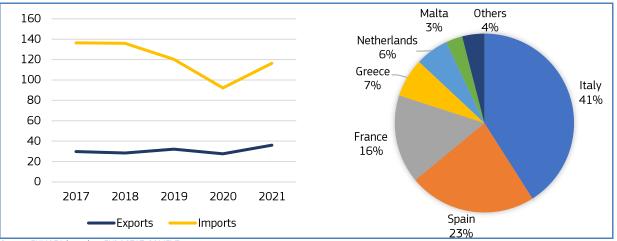
Source: Ministère de l'Agriculture. Groupement Interprofessionnel des Produits de la Pêche.

Focus on trade flows with the EU

In 2021, the fisheries and aquaculture products imported by the EU-27 countries from Tunisia amounted to a volume of 12.746 tonnes and a value of EUR 116 million. The EU trade balance with Tunisia for fisheries and aquaculture products showed a deficit, amounting to about EUR 80 million in 2021. During the last five years (2017-2021), trade between the EU and Tunisia has been characterised by an overall increase in EU exports value by 21%, and an overall decrease of EU imports value by -15%. Imports in 2020 were particularly low as a result of the COVID-19 pandemic.

The greatest shares of the imports were from Italy and Spain. In 2021, together they accounted for 89% of the volume of imports from Tunisia to the EU-27 and 91% of the imports in terms of value. As for exports, with EUR 14,69 million, Italy was responsible for almost half of EU exports to Tunisia in terms of value, followed by Spain (EUR 8,47 million), and France (EUR 5,83 million).

Figure 50. EU TRADE OF FISHERIES AND AQUACULTURE PRODUCTS WITH TUNISIA (value in million EUR) (LEFT) AND MAIN EU EXPORTING MEMBER STATES TO TUNISIA IN VALUE IN 2021 (RIGHT)



Source: EUMOFA based on EUROSTAT-COMEXT.

Cuttlefish was the species imported in the greatest volume to the EU from Tunisia. It represented 18% of the total volume of imports and 14% of the total value of imports in 2021, which placed it third in value terms. Italy alone accounted for circa 96% of EU cuttlefish imports, in 2021 importing 2.209 tonnes at a value of EUR 15,7 million.

Taken together, shrimp species constituted the greatest share of EU imports from Tunisia. In 2020, imports of miscellaneous shrimps, deep-water rose shrimps, and warm water shrimps constituted almost a third of EU imports. These were almost exclusively imported by Spain (60% of the EU's total volume of shrimp imports) and Italy (almost 40%).

Octopus was the fourth most imported species in volume terms and the sixth most imported species in value terms. Italy imported the greatest share of EU imports of octopus, with 93% of total EU imports by volume and 84% of EU imports by value.

Exports from the EU to Tunisia comprise mainly finfish:

- The product category 'other marine fish'⁵⁰ was the main category of fisheries and aquaculture species that was exported to Tunisia in value terms (43% of the total imports' value in 2021).
- This was followed by anchovy (19%) Exported by Spain in frozen form and by Italy in salted form.
- This was followed by skipjack tuna (10%) Exported from Spain and France in frozen form to be used by the canning industry.
- This was followed by herring (6%) Almost all exports were received in frozen form by the Netherlands.
- This was followed by mackerel (5%) Exported in frozen form from Spain, Portugal, and Malta.
- This was finally followed by salmon (3%) Exported mainly fresh from Italy.

⁵⁰ This category includes live fish, and comprises mainly fingerlings of sea bass and seabream.

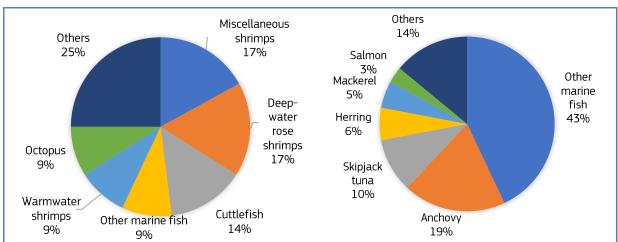


Figure 51. MAIN COMMERCIAL SPECIES IMPORTED FROM TUNISIA TO THE EU (left) AND EXPORTED TO TUNISIA (right) IN VALUE IN 2021

Source: EUMOFA based on EUROSTAT-COMEXT.

4.5 Consumption

National statistics provide data on the apparent market demand for fisheries and aquaculture products in Tunisia. These statistics show an overall increase in the market rate, except for 2020, which was characterised by a decrease in the apparent rate as a result of the COVID-19 pandemic. In 2019, the apparent market rate of fisheries and aquaculture products was estimated at 190.000 tonnes (a 48% increase in rates in comparison to 2006).

Per capita apparent consumption of fisheries and aquaculture products in Tunisia was estimated at less than 11,1 kg/year in 2020⁵¹. The national average hides a great disparity between coastal and inland regions, with the latter tending to record consumption of seafood products of less than 1 kg/capita/year.

Tunisian consumers prefer marine fish. Freshwater fish caught in lakes and dams are not appreciated by consumers and are almost exclusively consumed by populations living near reservoirs.

⁵¹ National observatory of Agriculture (Observatoire national de l'Agriculture). Available at: http://www.onagri.tn/uploads/images/filieres/peche-aqua/2021/Fiche-peche-aquaculture.pdf

5. Case study – Swordfish

5.1 Introduction

Swordfish (*Xiphias gladius*), also known as broadbill, is a large oceanic fish of high commercial value. Like all billfish⁵², swordfish have a large 'sword' (or rostrum) which makes up a third of their total length. Swordfish are highly migratory species and are found in all oceans. They are apex predators, feeding on a wide variety of smaller fish, crustaceans, and cephalopods. The females are highly fecund, releasing millions of eggs at a time. It is difficult to determine their age using otoliths⁵³ since they are very small and fish scales are missing in adults; however, year rings have been successfully counted on cross sections of the fin rays⁵⁴⁵⁵. Swordfish can reach at least 25 years of age, and females appear to grow faster and have a longer lifespan than males. From nuclear and mitochondrial DNA analyses, four genetically separated breeding units of swordfish have been identified: the



Source: Shutterstock, Climber 1959.

Mediterranean, north-western Atlantic, tropical to South Atlantic, and the Indo-Pacific. However, as is the case with most migratory species, the precise boundaries and amount of interbreeding between stocks is poorly understood. Pelagic longlines are the most common tools used in catching swordfish; however, smaller harvests are taken using drifting gillnets, driftnets, and harpoons. Swordfish is highly valued as game fish by sports fishermen (big game fishing); however, the catch volumes for this are minimal ⁵⁶.

5.2 Management of the swordfish

There are three major international organisations concerned with the study and management of tuna and tuna-like species (which include swordfish). The International Commission for the Conservation of Atlantic Tunas (ICCAT) has the mandate to manage swordfish and other large pelagic species in the Mediterranean and Atlantic Ocean up to Cape Agulhas (20° E). The Inter-American Tropical Tuna Commission (IATTC)studies and makes recommendations on the management of tuna and other fish caught by tuna vessels within the eastern tropical Pacific. The Indian Ocean Tuna Commission (IOTC) was created to contribute to the management of tuna and other migratory fish species in the Indian Ocean, east of Cape Agulhas. The General Fisheries Council of the Mediterranean (GFCM) and the ICCAT Working Group on Stocks of Large Pelagic Fishes in the Mediterranean Sea, the so-called "GFCM-ICCAT Working Group", make management recommendations and promote data exchange between nations. However, they do not enforce regulations.

In 2021, the TACs (Total allowable catches) assigned by ICCAT for EU vessels fishing for swordfish were 13.200 tonnes in the Atlantic Ocean zone north of 5°N, 14.000 tonnes in the Atlantic Ocean zone south of 5°N, and 9.017 tonnes in the Mediterranean Sea⁵⁷. The majority of the quota in the first two zones was assigned to Spain, while in the Mediterranean, the most was assigned to Italy. The ICCAT decided to maintain the current TAC for swordfish for EU vessels⁵⁸ in 2022.

The EU is responsible for about 70% of the total catch of Mediterranean swordfish, with Greece, Spain, and Italy reporting the majority share. A further 10% of the catch is shared between France, Croatia, Cyprus, and Malta. Other countries, notably

⁵² The collective name given to fish that have a sword-like extension to their upper jaw. This includes swordfish, marlins, sailfish, and spearfish.

⁵³ The otolith (ear stone or ear bone) is the most commonly used structure for determining the age of fish. Otoliths are calcium carbonate structures found inside the heads of bony fish.

⁵⁴ Fin rays form the skeleton of the fins of fishes, characteristic for bony fish.

⁵⁵ Muus, B.J. and J.G. Nielsen, 1999. Sea fish. Scandinavian Fishing Year Book, Hedehusene, Denmark. 340 p.

⁵⁶ https://www.iattc.org/Meetings/Meetings2021/IATTC-98a/Docs/_English/IATTC-98a-

⁰¹_The%20fishery%20and%20status%20of%20the%20stocks%202020.pdf

⁵⁷ https://ec.europa.eu/oceans-and-fisheries/system/files/2021-12/2021-12-08-non-paper-updates-2022-fishing-opportunities-regulation_en.pdf

se https://ec.europa.eu/oceans-and-fisheries/system/files/2021-12/2021-12-08-non-paper-updates-2022-fishing-opportunities-regulation_en.pdf

Algeria, Morocco, Tunisia, and Turkey, also exploit the stock in the Mediterranean. Since 2017, the multiannual recovery plan for Mediterranean swordfish is in effect and will continue until 2031. The aim is to achieve a maximum sustainable yield of Mediterranean swordfish by 2031, with at least a 60% probability of achieving that target⁵⁹. The preventive measures of the recovery plan include a closure period for fishing activities (from 1 January to 31 March each year) and longline vessels targeting Mediterranean albacore tuna (*Thunnus alalunga*) from 1 October to 30 November of each year. The measures also stipulate a minimum landing size of 100 cm lower jaw to fork length (LJFL), or fish weighing less than 11,4 kg of live weight, or 10,2 kg of gilled and gutted weight, as well as a fixed, maximum hook number of 2500.

16,3%

Italy

Spain

Greece

Malta

France

Other

Figure 52. SHARES OF TACS FOR THE EU VESSELS TARGETING SWORDFISH IN 2021 (zone: Mediterranean Sea)

Source: European Commission.

5.3 Fisheries

In 2019, the total world catch of swordfish was recorded as 115.345 tonnes, a decrease of 1.293 tonnes (-1%) compared to the previous year. Since 2011, catches have varied between 100.000 and 121.000 tonnes.

The majority of swordfish catches are from the Pacific Ocean (45%), followed by the Indian Ocean (30%) and the Atlantic Ocean and its adjacent seas (25%). The Southeast Pacific is the region of the Pacific with the highest catch volumes, followed by the Western Indian Ocean. However, in 2019, the highest catch volumes were recorded in the Western Indian Ocean (26.347 tonnes, 3.318 tonnes more than in the Southeast Pacific). When it comes to the Atlantic Ocean and its adjacent seas, the highest volumes of swordfish catches were recorded in the Mediterranean and Black Seas in 2019.

⁵⁹ https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32019R1154

140.000 120.000 Pacific Ocean 100.000 25% O00.000 Lounes 80.000 Indian Ocean 45% 40.000 Atlantic Ocean 20.000 and adjacent 30% 0 seas

Figure 53. CATCH OF SWORDFISH (volumes in tonnes) (left) AND SHARE OF DISTRIBUTION OF CATCHES IN THE WORLD'S OCEANS (%) (right, 2019)

Source: FAO.

By country, the highest catch volumes of swordfish are recorded by Spain, Taiwan, Japan, and Sri Lanka in 2019. The same year, Spain recorded a catch of 23.355 tonnes, 38 tonnes higher than the year before. Spain is the only major fishing country catching swordfish in all oceans. In 2019, Sri Lanka took second place over Taiwan with a record high catch of 12.096 tonnes, an increase of 39% compared to the previous year. Taiwan reported the lowest catch volumes of swordfish in the last five years at only10.523 tonnes (11% lower than in 2018), dropping to third place in 2019.

Other EU-27 countries recorded 7.137 tonnes of swordfish catch in 2019, which was an increase of 13% from the previous year.

Table 26. TOTAL CATCH VOLUMES OF SWORDFISH (in tonnes) BY COUNTRY

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
EU-Spain	18.975	29.177	25.224	28.346	30.090	26.260	25.736	22.676	23.307	23.355
Sri Lanka	3.161	3.675	3.845	5.537	4.365	5.102	4.378	9.200	8.700	12.096
Taiwan	9.730	11.027	14.400	12.944	12.922	15.067	14.332	12.892	11.862	10.523
Japan	12.335	11.406	10.539	10.162	10.837	11.073	10.949	10.547	9.472	7.979
EU27- Other	10.667	9.781	8.685	8.093	8.667	9.857	9.465	8.809	6.331	7.137
Ecuador	490	904	2.138	1.715	1.959	2.125	3.475	3.288	7.684	6.417
China	2.843	2.726	3.297	3.416	3.915	5.466	4.262	4.930	6.956	6.310
Chile	4.363	4.949	6.339	4.852	5.799	6.029	6.928	5.510	4.738	6.131
Other	36.601	35.665	39.927	41.112	41.801	39.086	40.081	33.432	37.588	35.396
Total	99.165	109.310	114.394	116.177	120.355	120.065	119.606	111.284	116.638	115.345

^{*}Totals may not correspond with the sum of the separate figures due to rounding.

Swordfish catch and landing volumes differ considerably between countries. ⁶⁰For example, Spain and Portugal have most of the TACs allocated in the Atlantic Ocean zones, while Italy dominates in the Mediterranean Sea, followed by Spain and Greece. The decrease in the total landing volumes from 2017 onwards can be partly explained by the implementation of the multiannual recovery plan for the Mediterranean swordfish that has been in force as of the same year.

^{*}EU27-Other includes all the MS from 2010-2019 except the United Kingdom and Spain Source: FAO

⁶⁰ https://ec.europa.eu/eurostat/cache/metadata/Annexes/fish_ld_esms_an3.pdf

Table 27. EU LANDINGS OF SWORDFISH (volumes in tonnes and values in EUR 1.000)

	20	15	20	16	20	17	20	18	20	19
	Volume	Value								
Spain	21.642	128.221	23.585	137.146	19.077	109.687	18.142	114.668	18.859	111.634
Italy	4.273	39.433	3.946	36.580	2.987	29.471	1.779	17.749	2.475	24.092
Portugal	736	4.031	725	4.020	675	4.572	725	5.205	1.094	6.382
France	848	5.193	921	8.423	664	5.935	730	6.538	850	7.661
Greece	728	6.632	561	4.856	461	4.289	369	3.583	651	5.867
Malta	489	3.078	410	2.542	361	2.266	308	2.757	407	3.371
Croatia	10	79	25	193	20	173	28	283	33	295
Cyprus	46	398	43	346	45	358	36	244	17	120
Ireland	16	98	9	59	0,2	0,3				
Total	28.787	187.161	30.224	194.165	24.290	156.752	22.117	151.026	24.386	159.424

^{*}Totals may not correspond with the sum of the separate figures due to rounding. Source: EUMOFA elaboration of EUROSTAT

First sales and wholesale prices

First Sales

From 2019 to 2021, the first sales data were reported by 6 EU MS: Spain, Italy, Portugal, Greece, France, and Cyprus. Spain and Italy reported the highest volumes and values (more than 90% of both). Total volumes and values in 2021 from all 6 EU MS were 19,2 thousand tonnes and 133 million EUR.

In 2021, first-sales volumes reported by Spain decreased by 10% while values increased by 18% from year before. Compared to 2019, first-sales volumes were 14% lower in 2021, while values were higher by 0,5%. The Spanish fishing fleet targets both North Atlantic and Mediterranean swordfish stocks. The closure period for the latter could explain the decreases in first-sales volumes for the last three years. Vigo, La Guardia and Burela are the fishing ports with the highest registered first-sales values from January to December 2021 in Spain.

14,00 2,5 12,00 Volume (1.000 tonnes) 2,0 1,5 1,0 0,5 2,00 0.0 0.00 Jan Mar May Jul Sep Nov Jan Mar May Jul Sep Nov Jan Mar May Jul Sep Nov 2019 2020 2021 ■ Volume 🕒 -Value

Figure 54. FIRST SALES IN SPAIN

Source: EUMOFA.

Italy, which had the highest EU quota for Mediterranean swordfish first sales in 2021, saw a decrease of 31% in volume and 22% in value relative to 2020. Compared to 2019, first-sales volumes and values were lower by 34% and 25% respectively. First sales in Italy are seasonal and there are no sales during the period between January and March due to fishery closures. Sant'Antioco, Porticello and Messina are the fishing ports with highest registered first-sales value in Italy from January to December 2021.

Figure 55. FIRST SALES IN ITALY



Source: EUMOFA.

From 2019 to 2021, the highest average price of swordfish was recorded in Italy (9,25 EUR/kg), 35% higher than in Spain (5,97 EUR/kg). In Italy, average first-sales prices have shown a positive trend from 2019 to 2021, increasing from 7,92 EUR/kg to 8,19 EUR/kg respectively. Peaks in prices are noticeable in the period from January to March when there is no supply due to fishery closure.

In Spain, average first-sales prices fell from 5,77 EUR/kg in 2019 to 5,72 EUR/kg in 2020. Average prices in 2021 were approximately 5,66 EUR/kg.

Figure 56. FIRST SALES IN ITALY AND SPAIN



Source: EUMOFA.

Wholesale prices

Generally, fresh swordfish is sold at higher wholesale prices than frozen. In 2019, the average yearly wholesale price of fresh swordfish was 16,9 EUR/kg, which is 8,00 EUR more than the average wholesale price for the frozen swordfish in the same year. The average wholesale prices for fresh swordfish were 18,7 EUR/kg and 19,9 EUR/kg, and for frozen, 8,2 EUR/kg and 10,1 EUR/kg, in 2020 and 2021 respectively.

The average wholesale price of fresh swordfish increased in the second half of 2019 and remained quite stable in 2020 and 2021. There was a peak in price, reaching almost 25,00 EUR/kg in weeks 15 and 16 of 2020, following the initial outbreak of the global COVID-19 pandemic; however, it stabilised soon after. There has been a positive trend in wholesale prices for fresh swordfish in the last quarter of 2021, as well as for frozen swordfish in the second half of 2021.

Figure 57. AVERAGE PRICE OF FRESH SWORDFISH ON THE MERCAMADRID WHOLESALE MARKET

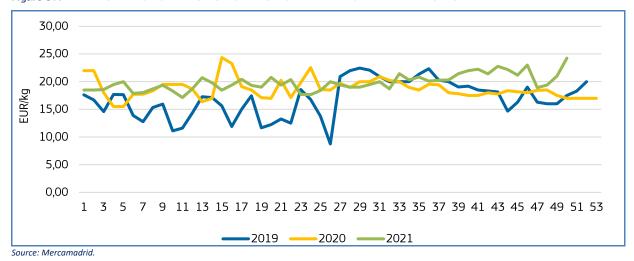
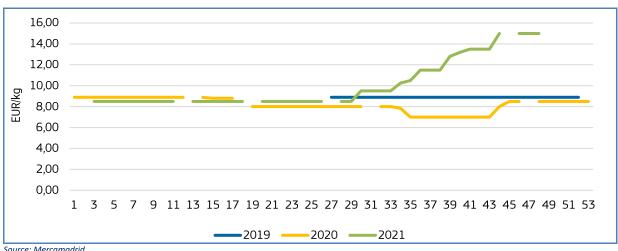


Figure 58. AVERAGE PRICE OF FROZEN SWORDFISH ON THE MERCAMADRID WHOLESALE MARKET



Source: Mercamadrid.

5.5 EU TRADE⁶¹

In 2021, the EU imported 17.636 tonnes swordfish at a value of nearly EUR 114 million, an increase of 5% and 19% respectively in volume and value, since 2020. In terms of volume, the majority of swordfish imports were from Ecuador (16%), China (15%), and Indonesia (13%). However, in terms of value the most important partner countries were Sri Lanka (18%), China (13%), and Morocco (13%) (Table 3). The majority (73%) of the imports in 2021 were frozen and the remaining import was fresh swordfish. Average price of the fresh swordfish imported in 2021 reached 10,05 EUR/kg while frozen swordfish was at 5,11 EUR/kg. Italy imported nearly 7.000 tonnes of swordfish at a value of EUR 45 million in 2021, covering 37% and 40% of total EU import volume and value respectively in 2021 (Table 4). Italy as importing country was followed by Portugal (5.224 tonnes and EUR 25 million) and Spain (4.250 tonnes and EUR 28 million).

Of the 500 tonnes of extra-EU exports of swordfish in 2021, 22% was headed to Singapore, 21% to the United States, and 20% to the United Kingdom. The majority of these exports were frozen (79%). As the largest fisheries nation, Spain was also the largest exporting MS covering 72% of total EU exports with a total of 360 tonnes exported at a value of around EUR 3 million in 2021.

Although Spain is the world's largest catching country of swordfish, the EU still experiences a trade deficit for swordfish with significantly higher extra-EU imports than extra-EU exports. Since 2017, extra-EU imports of swordfish have decreased by 65% while the imports of swordfish have decreased by 13%.

Table 28. EXTRA-EU IMPORT BY PARTNER COUNTRIES (volumes in tonnes and values in EUR 1.000)

	20	17	20	18	20	19	20	20	20	21
Partner Country	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Ecuador	1.051	3.033	2.208	8.118	2.700	11.616	1.862	7.257	2.827	14.473
China	2.088	10.723	2.231	12.069	2.138	12.468	1.888	9.265	2.683	15.294
Indonesia	1.645	7.967	2.124	11.277	1.308	7.754	2.177	9.050	2.352	10.515
Sri Lanka	1.213	10.426	1.628	16.575	1.913	19.505	1.612	17.366	1.799	20.282
Chile	2.679	17.503	2.461	18.634	3.728	23.742	2.002	12.560	1.759	14.062
Morocco	1.421	10.803	1.796	15.393	1.716	13.314	1.696	12.612	1.755	15.131
Other	10.237	55.423	9.767	54.149	10.506	58.711	5.602	27.091	4.461	23.866
Total	20.333	115.878	22.215	136.215	24.009	147.109	16.839	95.202	17.636	113.623

Source: EUMOFA elaboration of EUROSTAT-COMEXT.

Table 29. EXTRA-EU IMPORT BY IMPORTING MEMBER STATES (volumes in tonnes and values in EUR 1.000)

	20	17	20	18	20	19	20	20	20	21
Country	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Italy	6.281	38.966	6.883	46.804	7.247	51.334	5.375	34.394	6.597	45.128
Portugal	6.587	32.347	6.809	35.328	7.663	39.113	4.689	20.026	5.224	24.957
Spain	3.472	19.745	4.889	29.996	5.088	29.460	4.148	22.554	4.250	28.408
France	1.296	10.386	1.241	11.178	1.306	11.719	1.017	9.428	1.227	12.351
Germany	185	1.538	221	2.107	233	2.368	147	1.609	164	1.801
Greece	324	1.404	300	1.331	448	2.016	250	928	87	306
Other	2.188	11.492	1.872	9.471	2.024	11.099	1.213	6.263	87	672
Total	20.333	115.878	22.215	136.215	24.009	147.109	16.839	95.202	17.636	113.623

Source: EUMOFA elaboration of EUROSTAT-COMEXT.

⁶¹ The UK has been removed as an EU MS for all years covered by this analysis. To ensure that that the trade image described is accurate, previous (until the February 2020) intra-EU trade between the UK and other MS has been removed and readded as extra EU trade.

5.6 CONSUMPTION

The swordfish fishery is very important for Southern Europe, especially Spain and Italy, where swordfish is consumed the most. Swordfish is appreciated for its taste, firmness, and for the absence of bones. The meat is grey-white and has a firm texture. It is sold mainly as steaks or loins, fresh or frozen, sometimes skinned. It can also be found as cold-smoked slices. Its mild, sweet flavour is highly regarded, and it is consumed grilled, broiled, baked, or poached, and even raw as carpaccio inter alia in Italy⁶².

In the EU, apparent consumption of the commodity group "tuna and tuna-like species" includes 97% tuna and 3% swordfish⁶³. Europe's demand is mostly focused on frozen swordfish, rather than fresh swordfish. However, the current frozen swordfish market in Europe is still in recovery after Spain detected illegal swordfish entering from Indonesia and Vietnam in 2014⁶⁴.

⁶² https://www.eumofa.eu/documents/20178/108141/MH+9+2017-+final.pdf

⁶³ https://www.eumofa.eu/documents/20178/477018/EN_The+EU+fish+market_2021.pdf/27a6d912-a758-6065-c973-c1146ac93d30?t=1636964632989

⁶⁴ https://houseofocean.org/2014/09/29/catch-certificates-and-swordfish-imports-into-the-eu/

6. Global highlights

EU / Fisheries / Conservation: On 9 February, the European Commission adopted a set of conservation measures to protect six areas defined under the Marine Strategy Framework Directive (MSFD) and five Natura 2000 sites in the Danish and Swedish parts of the Kattegat Based on a joint initiative of Denmark, Sweden, and Germany, the action is a positive step towards reducing the impact of fishing activities on the seabed and habitats. The measures ensure the protection of sensitive species, will improve the ecological functioning of Marine Protected Areas (MPA), and will deliver on the European Green Deal and EU's biodiversity strategy for 2030⁶⁵.

EU / Algae: The European Commission, the European Climate, Infrastructure and Environment Executive Agency (CINEA), and a consortium of sustainability consultants and



algae organisations are launching a European algae stakeholder platform, called EU4Algae. The aim of the platform is to accelerate the development of the European algae industry and promote algae for nutrition and other uses among consumers and businesses in the EU. The platform will be a unique space for collaboration among European algae stakeholders including algae farmers, producers, sellers, consumers, and technology developers, as well as business-support organisations, investors, public authorities, academia, researchers, and NGOs. The platform will be online by the summer of 2022⁶⁶.

Iceland / Statistics: The Icelandic Directorate of Fisheries has compiled data showing the catch composition of vessels that participate in bottom trawling and longline fishing, that were subject to the Directorate of Fisheries' surveillance in 2021. Data can be consulted **here**⁶⁷.

EU / Seafood / Overfishing: Over one quarter of Europe's 20 most highly-fished marine species will be under extreme pressure by 2100 if nothing is done to simultaneously halt climate change, overfishing, and mercury pollution, according to a new study by the University of British Columbia (UBC). The study is one of the first to examine the combined effects of rising temperatures, overfishing, and mercury pollution on fish in EU waters. The results showed that impacts to Europe's fish stocks will vary widely depending on each species' average temperature tolerance, with seafood staples such as Norway lobster, common sole, great Atlantic scallop, red mullet, and European hake projected to decline both in abundance and in distribution as water temperatures reach lethal levels⁶⁸.

Netherlands / Fisheries / Innovations: Two institutes of Wageningen University (Wageningen Marine Research and Agro Food Robotics), in cooperation with VisNed and several fishing vessels, are developing a digital tool to implement a fully documented fishery (FDF). The project has received just under EUR 3 million in support from the European Maritime and Fisheries Fund (EMFF). FDF introduces automated recognition of the size and species of each fish, distinguishing between catches fit for human consumption (above minimum size) and unwanted catches (below minimum size). Using remote electronic monitoring (REM) systems, the tool can determine the weight of the total catch⁶⁹.

World / Fisheries / Sustainability: Many nations are calling for the protection of 30% of the world's oceans by 2030 from some or all types of exploitation, including fishing. Building off this proposal, a new analysis led by the University of Washington looks at how effective fishing closures are at reducing accidental catch. Researchers found that permanent Marine Protected Areas (MPA) are a relatively inefficient way to protect marine biodiversity that is accidentally caught in fisheries. Dynamic ocean management — changing the pattern of closures as accidental catch hotspots shift — is more effective. The results were published online on 17 January in the Proceedings of the National Academy of Sciences, a non-profit society of the USA⁷⁰.

⁶⁵ https://ec.europa.eu/oceans-and-fisheries/news/fisheries-conservation-reinforced-protection-11-vulnerable-sites-north-sea-kattegat-2022-02-

⁶⁶ https://ec.europa.eu/oceans-and-fisheries/news/european-commission-launches-platform-promote-production-and-use-algae-europe-2022-02-09_en

 $^{^{67}\,}https://www.fiskistofa.is/umfiskistofu/frettir/aflasamsetning-a-botnvorpu-og-dragnotaveidum-2021$

⁶⁸ https://oceans.ubc.ca/2022/02/07/europes-most-valuable-marine-species-reduced-to-a-fraction-of-their-current-population-size-by-2100/

⁶⁹ https://ec.europa.eu/oceans-and-fisheries/news/fully-documented-fisheries-action-2022-01-31_en

⁷⁰ https://www.washington.edu/news/2022/01/17/shifting-ocean-closures-best-way-to-protect-animals-from-accidental-catch/

Macroeconomic Context

7.1. Marine fuel

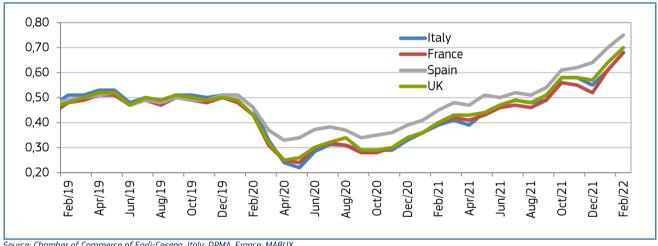
Average prices for marine fuel in February 2022 ranged from 0,68 to 0,75 EUR/litre in ports in France, Italy, Spain, and the UK. Average prices increased by 10% compared with the previous month and increased by an average of 71% compared with the same month in 2021.

Table 30. AVERAGE PRICE OF MARINE DIESEL IN ITALY, FRANCE, SPAIN, AND THE UK (EUR/litre)

Member State	Feb 2022	Change from Jan 2022	Change from Feb 2021
France (ports of Lorient and Boulogne)	0,68	11%	70%
Italy (ports of Ancona and Livorno)	0,68	11%	74%
Spain (ports of A Coruña and Vigo)	0,75	7%	67%
The UK (ports of Grimsby and Aberdeen)	0,70	9%	75%

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

Figure 59. AVERAGE PRICE OF MARINE DIESEL IN ITALY, FRANCE, SPAIN, AND THE UK (EUR/litre)

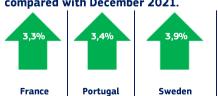


Source: Chamber of Commerce of Forlì-Cesena, Italy; DPMA, France; MABUX.

7.2. Consumer prices

The EU annual inflation rate was at 5,6% in January 2022, up from 5,3% in December 2021. A year earlier, the rate was 1,2%.

Inflation: Lowest rates in January 2022, compared with December 2021.



Inflation: Highest rates in January 2022, compared with December 2021.







Table 31. HARMONISED INDEX OF CONSUMER PRICES IN THE EU (2015 = 100)

	Jan 2020	Jan 2021	Dec 2021	Jan 2022	_	ge from 2021	_	e from 2021
Food and non- alcoholic beverages	108,10	109,28	112,87	114,48	•	1,4%	•	4,8%
Fish and seafood	113,87	114,47	117,23	119,49	1	1,9%	•	4,4%

Source: Eurostat.

7.3. Exchange rates

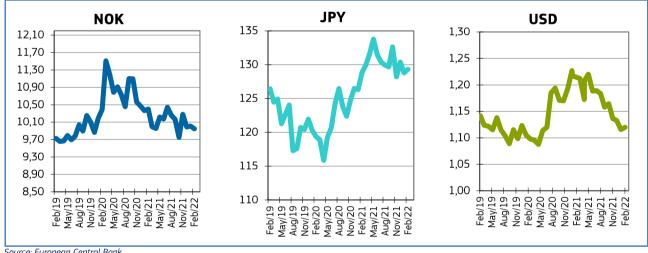
Table 32. EURO EXCHANGE RATES FOR SELECTED CURRENCIES

Currency	Feb 2020	Feb 2021	Jan 2021	Feb 2022
NOK	10,3888	10,4012	10,0085	9,9465
JPY	119,36	128,83	128,79	129,31
USD	1,0977	1,2121	1,1156	1,1199

Source: European Central Bank.

In February 2022, the euro appreciated against the Japanese yen (0,4%) and the US dollar (0,1%), and depreciated against the Norwegian krone (-0,6%), relative to the previous month. For the past six months, the euro has fluctuated around 1,14 against the US dollar. Compared with February 2021, the euro has appreciated 0,4% against the Japanese yen, depreciated 4,4% against the Norwegian krone, and depreciated 7,6% against the US dollar.

Figure 60. TREND OF EURO EXCHANGE RATES



Source: European Central Bank.

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

First sales: EUR-Lex, DG MARE- European Commission.

Consumption: EUROPANEL.

Case studies: Statistics Tunisia, National observatory of Agriculture in Tunisia, Ministère de l'Agriculture. Groupement Interprofessionnel des Produits de la Pêche Tunisia, FAO, FAO FishStat, STECF, Centre Technique d'Aquaculture, Global Aquaculture Information network, European Commission, Eurostat Comext, Scandinavian Fishing Year Book, EUR-Lex, European Commission, Inter-American-Tropical-Tuna-Commission, FAO, EUMOFA, Eurostat, Mercamadrid, House of Ocean.

Global highlights: DG Mare - European Commission, The Directorate of Fisheries Iceland, Institute for the Oceans and Fisheries, The University of British Columbia, University of Washington.

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 Highlight, 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. 421

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