



# MUSSEL

## (*MYTILUS EDULIS* AND *MYTILUS GALLOPROVINCIALIS*)



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*Mytilus edulis* (1) and *Mytilus galloprovincialis* (2)

## BIOLOGY AND HABITAT

- **Species description** (Read more [\(1\)](#) [\(2\)](#))

Mussel is the common name used for members of several families of bivalve molluscs. *Mytilus edulis* (blue mussel) and *Mytilus galloprovincialis* (Mediterranean mussel) are the main species of the family of Mytilidae produced and consumed in the EU.

- **Geographical distribution and habitat** (Read more [\(1\)](#) [\(2\)](#))

Mussels are found in a wide variety of habitats, from tidal areas to fully submerged zones, with a broad range of temperatures and salinities.

## RESOURCE, EXPLOITATION AND MANAGEMENT

- **Production methods and fishing gears** (Read more [\(1\)](#) [\(2\)](#))

In the wild, mussels are caught using dredges and trawls.

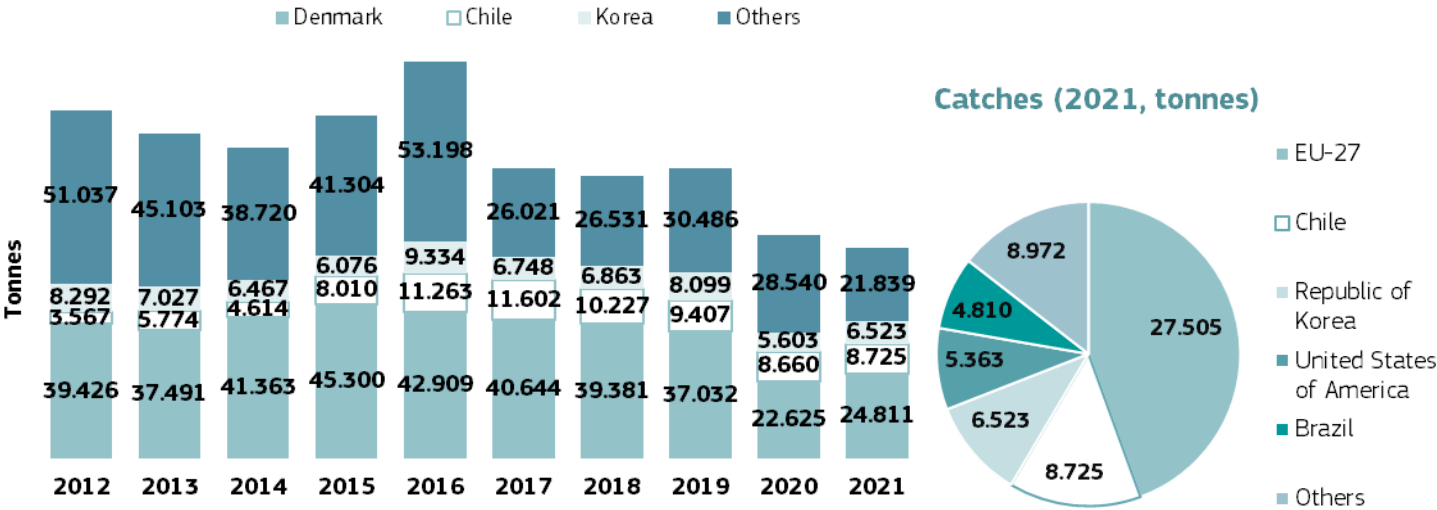
When farmed, mussels are produced using bottom culture techniques (sheltered beds) or suspended and off-bottom (rafts, *bouchots*, longlines).



# CATCHES

## Evolution of world catches

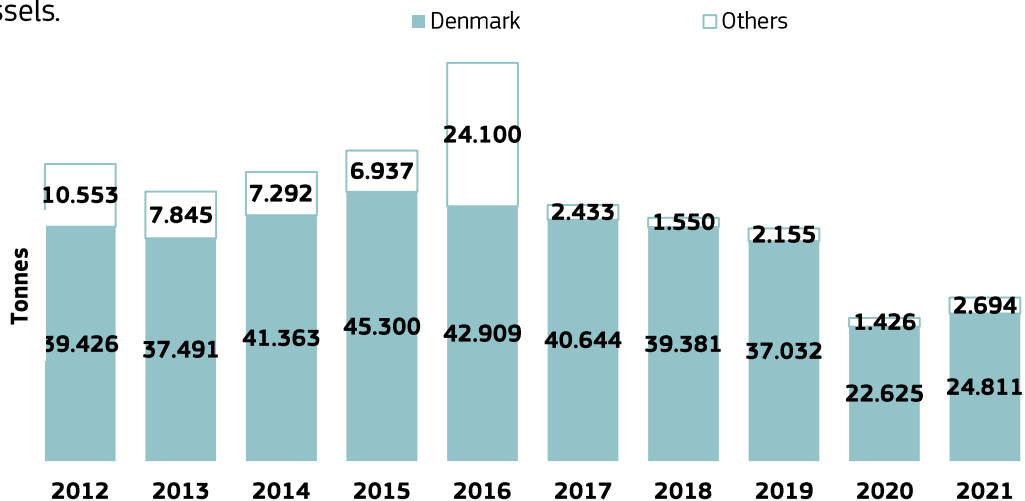
- At global level, catches of mussels (mainly blue mussels, 51% of world mussels' catches) amounted at circa 62.000 tonnes in 2021 (i.e. 0,03% of total global catches). The EU is the main producer globally.



Source: FAO

## Evolution of EU catches

- In 2021, the EU accounted for 44% of the global catches of mussels.
- The same year, Denmark provided 90% of the EU catches and 40% of global catches of mussels.



Source: FAO

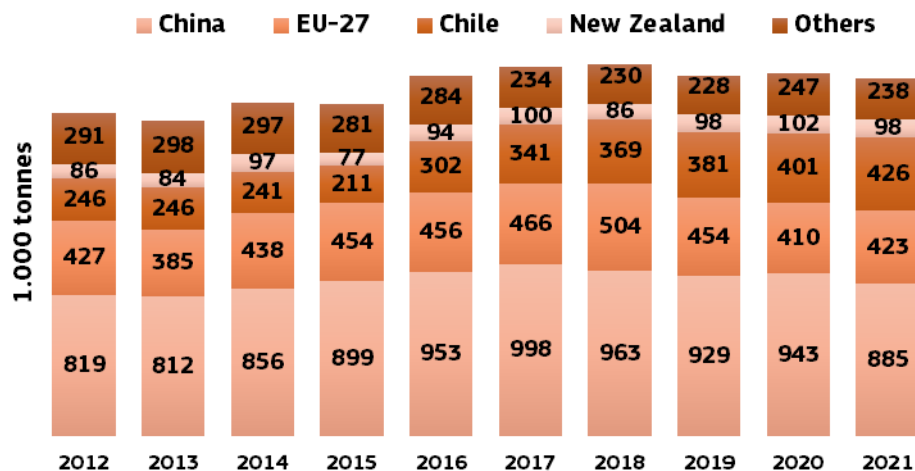
In both charts, the volume variation under the category « others » is linked to irregular catches in Germany during the studied period.



# AQUACULTURE PRODUCTION

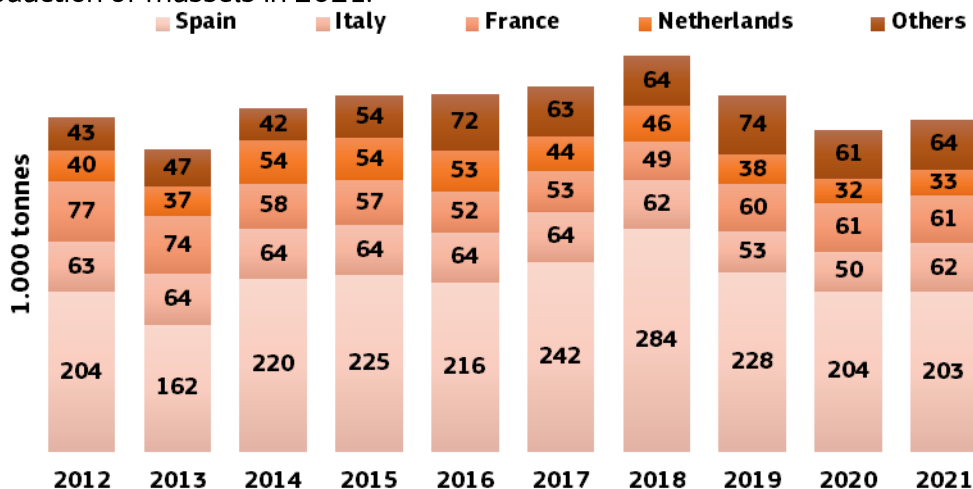
## Evolution of world aquaculture production

- From 2012 to 2021, the global mussel's aquaculture production increased by **11%**, driven mainly by the growth of the Chilean, New Zealand and Chinese production (73%, 13% and 8% increase respectively). China, Chile and Spain were the top-three producers. They provided 73% of the global production in 2021.
- Global mussel aquaculture production reached around 2.070.000 tonnes in 2021, out of which *Mytilus edulis* and *Mytilus galloprovincialis* represented 8% (almost all produced in the EU).



## Evolution of EU aquaculture production

- In 2021, the EU production reached over 423 tonnes, contributing to 20% of the global mussels' production and 93% of the global production of *Mytilus galloprovincialis* and *Mytilus edulis*. From 2012 to 2021, the EU production of mussels has remained relatively stable (-1%).
- The top-four EU producers (Spain, Italy, France and Netherlands) accounted for 85% of the EU production of mussels in 2021.



Source: FAO



## Mussels

# PROCESSING

- Traditionally, a large part of mussels is consumed live or fresh, while there has also been production of canned mussel (e.g. Spain). With the increase of frozen and prepared mussel imports, in recent years, the processing industry has opted for more added value products through a greater degree of processing, especially ready-to-eat products such as boiled mussels with and without shell (e.g. Ireland) and even processed dishes of fresh mussels in different sauces.
- There are no specific data on EU production of processed mussels at EU level. Data are available for Spain which is the main producer of processed mussel in the EU (mainly canned mussels). In 2021, it produced 14.778 tonnes of canned mussels (net weight) for a value of over EUR 124 million (-2% in volume and -9% in value in comparison to 2020) (Source: Spanish association of canned fish: *Asociación Nacional de Fabricantes de Conservas de Pescados*, ANFACO).



## TRADE

- **Combined nomenclature [\(1\)](#) [\(2\)](#)**

### EU imports-exports (2022, EU-27)

Concerning the genus *Mytilus*, which is produced in EU, trade is mainly intra-EU. Extra-EU trade concerns other species than *Mytilus spp.*

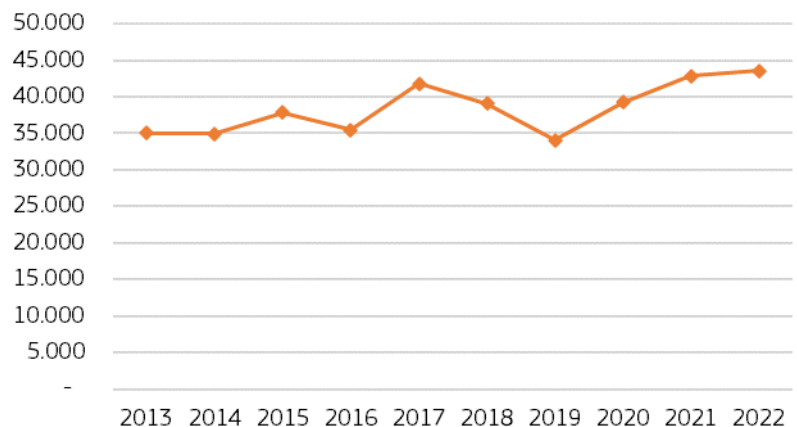
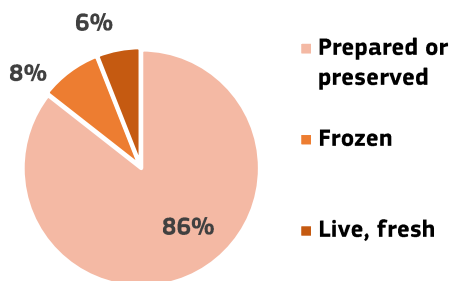
### EU trade of mussels (tonnes - 2022)

CN code	Product	EU imports	EU exports
03 07 31 10	Mussels " <i>Mytilus spp.</i> ", Live, fresh or chilled	2.750	3.117
03 07 31 90	Mussels " <i>Perna spp.</i> ", live, fresh or chilled, with or without shell	2	95
03 07 32 10	Mussels " <i>Mytilus spp.</i> ", frozen	79	729
03 07 32 90	Mussels " <i>Perna spp.</i> ", frozen, even in shell	4.238	101
03 07 39 20	Mussels " <i>Mytilus spp.</i> ", smoked, dried, salted or in brine	22	162
03 07 39 80	Mussels " <i>Perna spp.</i> ", smoked, dried, salted or in brine, even in shell	41	24
16 05 53 10	Mussels, prepared or preserved, in airtight containers	8.169	1.302
16 05 53 90	Mussels, prepared or preserved, other	35.512	1.518
<b>Total</b>		<b>50.814</b>	<b>7.048</b>

**Extra-EU imports** of mussels reached over 50.800 tonnes in 2022. These were constituted mostly by other mussels' species than *Mytilus spp.* (i.e. *Perna spp.*)

- 86% of EU imports concerned preserved mussels (43.681 tonnes). All preserved mussels imported to the EU came from Chile. These imports have increased since 2013 (24% between 2013 and 2022).
- Only 6% of EU imports concerned live, fresh mussels imported from the UK (after Brexit).
- Spain, France and Italy were the main importers in the EU (together they represented 76% of EU mussels' imports in 2022).

### Imports by product type (2022, % in volume)



Source: EUROSTAT-COMEXT

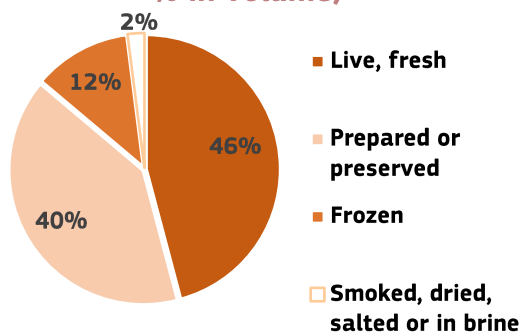


# Mussels

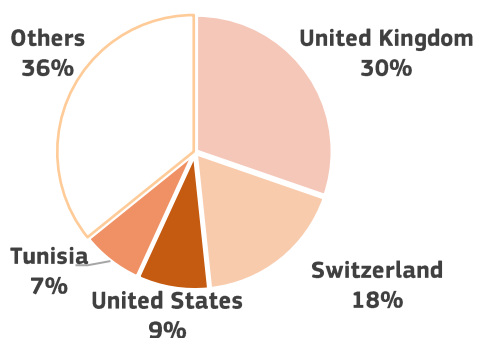
## TRADE

**Extra-EU exports** reached circa 7.048 tonnes in 2022. Mussels' exports concerned mainly live and fresh mussels (46%) and prepared and preserved mussels (40%). Main destinations were United Kingdom (30% of the EU exports, in volume terms), Switzerland (18%) and USA (9%).

**Exports by product type (2022, % in volume)**



**Main destinations (2022, % in volume)**



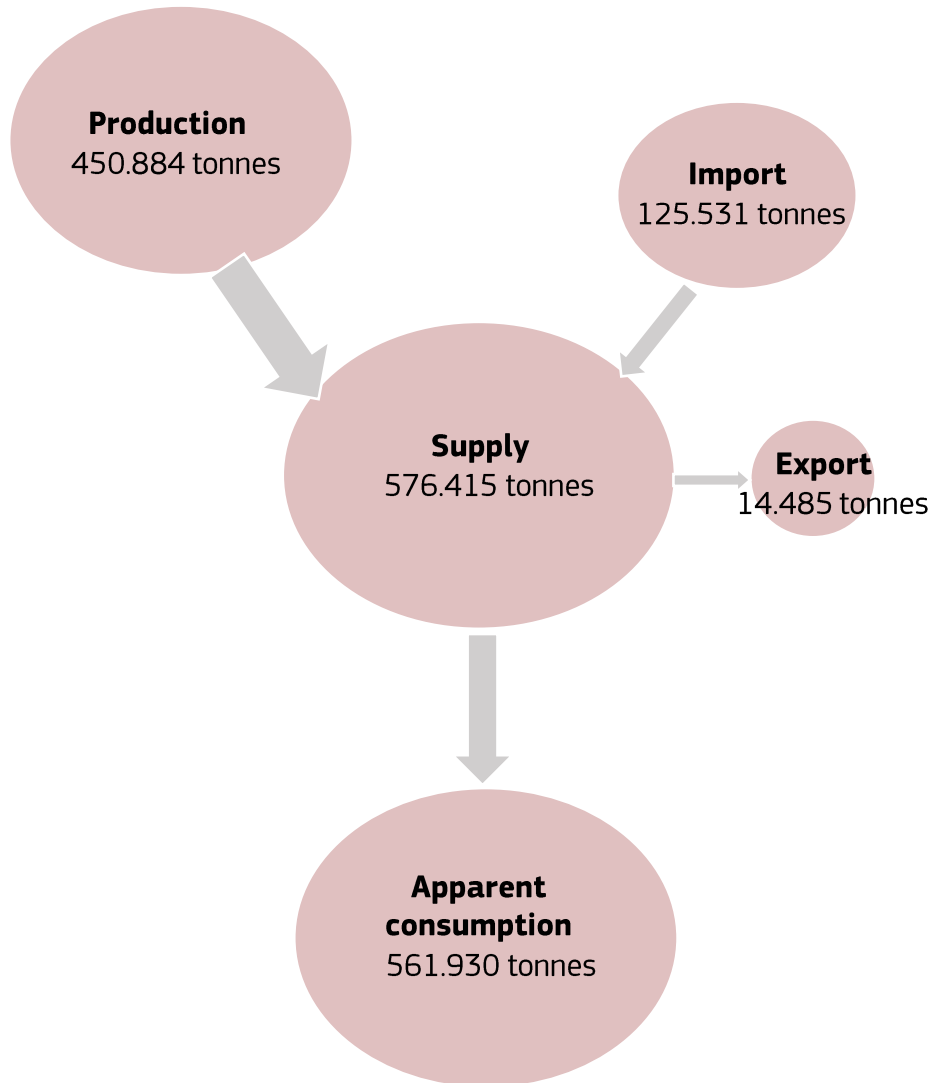
Source: EUROSTAT-COMEXT



# Mussels

## Supply balance

**EU supply balance (2021<sup>1</sup>) – Tonnes of live weight equivalent<sup>2</sup> - Mussels:**  
*Production data concern *Mytilus edulis* and *Mytilus galloprovincialis* while trade data include other species of mussels (i.e. *Perna* spp.)*



Source: FAO/ EUROSTAT-COMEXT

<sup>1</sup> Supply balance is provided for the year 2021 (trade data for 2021 were taken into account). Detailed trade data provided in the slides 5 and 6 concern the year 2022.

<sup>2</sup> The [conversion factors](#) were used to convert net weight of imports and exports of fishery and aquaculture products into live weight equivalents.



## Mussels

# PRICES ALONG THE SUPPLY CHAIN (EUR/kg)

## First-sale (wild)/ Ex-farm (farmed) - (live/fresh)

First-sale prices are presented for the main producers in the EU : Denmark for wild blue mussel; Spain and Italy for farmed *M. galloprovincialis* and France and Netherlands for farmed *M. edulis*.

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023*	Source
<b>Denmark (wild)</b>	0,20	0,21	0,18	0,20	0,19	0,18	0,27	0,30	0,33	0,33	EUMOFA
<b>Spain (farmed)</b>	0,50	0,51	0,55	0,54	0,55	0,52	0,52	0,68	n.a.	n.a.	EUMOFA
<b>France (farmed)</b>	1,81	2,02	2,46	2,62	2,11	2,28	2,27	2,26	n.a.	n.a.	EUMOFA
<b>Italy (farmed)</b>	0,78	0,82	0,84	0,90	0,87	0,85	0,88	0,98	n.a.	n.a.	EUMOFA
<b>Netherlands (farmed)</b>	1,22	1,06	0,84	1,07	1,13	1,20	1,38	1,99	n.a.	n.a.	EUMOFA

(\* ) From January to November 2023

## Wholesale (fresh)

Wholesale prices are provided for the largest seafood wholesale market in the EU, Mercamadrid.

Most frequent prices	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023*	Source
<b>Spain</b>	1,92	1,92	1,90	1,97	1,91	1,73	1,80	1,87	2,00	2,16	Mercamadrid

(\* ) From January to November 2023

## Retail/consumption (fresh)

Retail prices refer to Denmark, France, Spain, Netherlands, and Italy (prices refer to *Mytilus spp.*).

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023*	Source
<b>Denmark</b>	3,92	4,5	3,8	5,02	4,79	8,04	4,76	4,92	n.a.	n.a.	EUMOFA
<b>France</b>	4,08	4,21	4,32	4,5	4,72	4,72	4,81	4,83	5,55	5,62	EUMOFA
<b>Spain</b>	2,85	2,94	2,98	3,02	3,13	n.a.	n.a.	n.a.	n.a.	n.a.	EUMOFA
<b>Spain - frozen mussel</b>	5,89	6,35	6,49	6,12	6,69	6,64	7,04	7,20	7,92	n.a.	MAPA
<b>Spain - fresh mussel</b>	2,45	2,46	2,52	2,55	2,58	2,62	2,81	3,66	3,79	n.a.	
<b>Netherlands</b>	4,18	4,12	4,38	3,6	3,84	3,86	5,03	4,4	n.a.	n.a.	EUMOFA
<b>Italy</b>	n.a.	n.a.	n.a.	n.a.	n.a.	1,2	1,25	1,25	1,38	1,28	ISMEA

(\* ) From January to November 2023





## Mussels

# PRICES ALONG THE SUPPLY CHAIN (EUR/kg)

## Import (prepared/preserved from Chile)

Extra-EU imports concern prepared/preserved mussels (from species other than *Mytilus spp.*). The main importers were Spain, France, Italy and to lesser extent the Netherlands.

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023*	Source
<b>Spain</b>	2,82	3,34	3,07	3,20	3,09	4,40	3,32	3,10	3,53	3,91	EUMOFA
<b>France</b>	2,18	2,66	2,40	2,32	2,19	2,27	2,56	2,49	2,99	3,01	EUMOFA
<b>Italy</b>	2,25	2,77	2,38	2,40	2,17	n.a.	2,47	2,32	2,80	2,81	EUMOFA
<b>Netherlands</b>	2,40	2,88	2,59	2,44	2,18	2,43	2,73	2,53	3,09	3,18	EUMOFA

(\*) From January to August 2023

## Export (fresh)

Extra-EU exports concern mainly fresh mussels. Main exporters are Ireland, Italy, Denmark and France.

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023*	Source
<b>Denmark</b>	2,94	1,86	1,97	2,31	3,97	7,76	0,75	0,92	1,06	1,11	EUMOFA
<b>Ireland</b>	4,65	6,08	5,03	6,00	3,75	3,74	0,98	0,64	0,90	0,81	EUMOFA
<b>Italy</b>	3,65	3,94	5,03	5,19	5,45	4,16	3,99	4,92	3,95	3,18	EUMOFA
<b>France</b>	4,12	4,36	3,78	3,50	3,54	3,89	3,74	3,89	4,35	4,55	EUMOFA

(\*) From January to August 2023



# Mussels

## MARKETING

- National lists of commercial designations ([Read more](#)).
- Information system on commercial designations and scientific names in all EU languages ([Read more \(1\) \(2\)](#)).
- In the EU, there are three names protected under **Protected Designations of Origin** (PDO) and one name under **Traditional Specialities Guaranteed** (TSG) for fresh mussels. They are:
  - PDO “**Mejillón de Galicia; Mexillón de Galicia**” in Spain;
  - PDO “**Moules de Bouchot de la Baie du Mont-Saint-Michel**” in France;
  - PDO “**Cozza di Scardovari**” in Italy;
  - TSG “**Moules de Bouchot**” in France.

## CONSUMPTION

- Mussel is the sixth most consumed species in the EU (source: [The EU Fish Market – 2023 edition](#), EUMOFA)
- Mussel apparent consumption per capita in 2021: **1,25 kg** live weight equivalent (source: [The EU Fish Market – 2023 edition](#), EUMOFA)
- Nutritional value (Blue mussel, Mediterranean mussel, nutrition values per serving 100 g), [Read more \(1\) \(2\)](#)

Nutrition values	Blue mussel	Mediterranean mussel
Energy (kcal)	86	86
Total fat (g)	2,24	0,96
Saturates (g)	0,425	0,187
Carbohydrate (g)	3,69	3,57
Sugar (g)	0	0
Protein (g)	11,9	14,67
Salt (mg)	715	1502,5