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GLOBEFISH HIGHLIGHTS

A QUARTERLY UPDATE ON WORLD SEAFOOD MARKETS

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GLOBEFISH Highlights

A quarterly update on world seafood markets

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Dear Reader,

Fisheries and aquaculture provide food, jobs, and economic benefits for millions of people across the globe. In 2028, world fisheries and aquaculture production is projected to reach 196 million tonnes and the world food fish consumption is projected to increase by 16%. Upstream and downstream activities along the fish and seafood value chain create significant employment and economic benefits to countries and their local coastal communities. Indeed, nowadays, roughly, 60 million people are employed in fisheries and aquaculture, and its value chain generates some 200 million direct and indirect employment opportunities.

Fish and fishery products are some of the most traded food commodities in the world in value – about 36% of total fishery production are expected to be exported in 2028. Being the main producers, developing countries are expected to remain the key suppliers of fish and fishery products to world markets, while developed countries will remain the major importers for human consumption.

In 2015, a new opportunity for the expansion of the sustainable trade of fish and fishery products has arisen with the adoption of the 2030 Agenda for Sustainable Development, which is built on 17 Sustainable Development Goals (SDGs). These goals are integrated with 169 targets and 232 related indicators that monitor progress in social, economic, and environmental development, to which all members of the United Nations have agreed to pursue and implement.

For the first time, a global goal on “oceans and seas” has been adopted. Sustainable Development Goal 14 is exclusively dedicated to “conserve and sustainably use the oceans, seas and marine resources for sustainable development.”

There are four economy and trade-related targets in Sustainable Development Goal 14, including three means of implementation. They aim to:

- eliminate illegal, unreported, and unregulated (IUU) fishing and harmful fisheries practices;
- increase economic benefits for Small Island Development States (SIDS) and Least Developed Countries (LDCs) from the sustainable use of marine resources; and
- improve market access and economic benefits for small-scale artisanal fisheries.

FAO, the United Nations Conference on Trade and Development (UNCTAD) and UN Environment made a voluntary commitment to support the implementation of Sustainable Development Goal 14 – a proposed interagency Plan of Action which has been designed to accelerate the achievement of the trade-related targets of Sustainable Development Goal 14 in a coordinated manner.

Drawing on the complementary mandates of the three agencies, the Plan of Action proposes a strategy and key actions using innovative approaches and tools around the oceans and the blue economy to strengthen the capacity of developing countries in meeting the trade-related aspects of Sustainable Development Goal 14, with a focus on SIDS and LDCs.

In addition, the Plan of Action is a pragmatic answer to create business opportunities on sustainable production of fish leading to sustainable trade in an inclusive and multifaceted approach.

To get a copy of the interagency Plan of Action or to receive more information on the plan, please contact us at globefish@fao.org.

Sincerely yours,



Audun Lem Ph.D

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ABOUT GLOBEFISH

GLOBEFISH forms part of the Products, Trade and Marketing Branch of the FAO Fisheries and Aquaculture Department and is part of the FISH INFOnetwork. It collects information from the main market areas in developed countries for the benefit of the world's producers and exporters. Part of its services is an electronic databank and the distribution of information through the European Fish Price Report, the GLOBEFISH Highlights, the GLOBEFISH Research Programme and the Commodity Updates.

The GLOBEFISH Highlights is based on information available in the databank, supplemented by market information from industry correspondents and from six regional services which form the FISH INFOnetwork: INFOFISH (Asia and the Pacific), INFOPECSA (Latin America and the Caribbean), INFOPECHE (Africa), INFOSAMAK (Arab countries), EUROFISH (Central and Eastern Europe) and INFOYU (China).

Helga Josupeit and Marcio Castro de Souza were responsible for quality content review, and Fatima Ferdouse and Weiwei Wang created statistical figures. The Norwegian Seafood Council provided data support for the FAO Fish Price Index. Illustrations were sourced from the Food and Agriculture Organization of the United Nations, Original Scientific Illustrations Archive.

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ACRONYMS AND ABBREVIATIONS

GLOBEFISH HIGHLIGHTS

ASC	Aquaculture Stewardship Council
ASEAN	Association of Southeast Asian Nations
CAPPMA	China Aquatic Products Processing and Marketing Alliance
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
DFO	Canadian Department of Fisheries and Oceans
FAD	Fish Aggregating Device
FAO	Food and Agriculture Organization of the United Nations
FDA	US Food and Drug Administration
FOB	Freight On Board
FPI	FAO Fish Price Index
HAPO	Hellenic Aquaculture Producers Organization
HORECA	Food service industry (Hotel/Restaurant/Café)
IATTC	Inter American Tropical Tuna Commission
ICES	International Council for the Exploration of the Sea
IFREMER	Institut Francais de Recherche pour l'Exploitation de la Mer
IMARPE	Instituto del Mar del Perú
INIDEP	National Institute of Fisheries Research and Development
IUCN	International Union for Conservation of Nature
IUU	Illegal, unreported and unregulated fishing product
LDC	Least Developed Countries
MSC	Marine Stewardship Council
MSY	Maximum Sustainable Yield
NAFO	Northwest Atlantic Fisheries Organization
NGO	Non-governmental organization
NOAA	US National Oceanic and Atmospheric Administration
NSC	Norwegian Seafood Council
RASFF	Rapid Alert System for Food and Feed
SDG	Sustainable Development Goal
SERNAPESCA	National Fisheries and Aquaculture Service of Chile
SID	Small Island Development States
SSPO	Scottish Salmon Producers Organization
TAC	Total Allowable Catch
TiLV	Tilapia Lake Virus
TIP	Trafficking in Persons
UNCTAD	United Nations Conference on Trade and Development
VASEP	Viet Nam Association of Seafood Exporters and Producers

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GLOBAL FISH ECONOMY

GLOBEFISH HIGHLIGHTS

*Uncertainty
suppressing
trade in 2019
but lull is likely
to be short-lived*



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Production trends for capture fisheries and aquaculture continue to diverge in 2019. The expected 3.4 percent decline in wild catches is set to further reduce the sector's share of total production as farmed harvests continue to increase at a steady pace of around 4 percent per year. Supplies of cod, mackerel and octopus have been particularly tight, while a reduced anchoveta quota in Peru will translate into reduced landings for this important fishery. Relatively more plentiful catches are reported in the Western and Central Pacific skipjack tuna fishery, a key source of raw material for tuna canneries. Meanwhile, aquaculture production has been increasing for virtually all major species in recent years, although demand is outpacing supply for many bivalve products and harvest reductions are on the horizon for shrimp, seabass and seabream.

Indicators measuring the health of the global economy point to slowing trade growth in 2019 and buyer hesitancy amidst a general atmosphere of political uncertainty. The effects of these broader

trends are evident in seafood trade estimates for 2019, with flat or minimal expansion in the total export value expected for the year as a whole, contrasting with strong increases in the last two years. The tariffs introduced on a range of commodities by both China and the United States of America have inevitably had a visible impact on seafood trade flows between these two major trading partners, while the reluctance of firms to take on too much risk when the situation can change so quickly is another less direct but more widespread consequence of the trade war. In the United Kingdom, the possibility of a no-deal Brexit occurring on 31 October is being taken increasingly seriously and businesses have been urged to plan accordingly. The large Scottish salmon industry has expressed their concern that the government's preparations have been insufficient considering the extent of the potential disruption to transportation networks and export procedures.

The most recent FAO Fish Price Index (FPI) reflects the ongoing divergence of prices for capture species

and aquaculture species. While the capture fisheries sub-index continues to be supported at near record levels, the aquaculture sub-index has fallen back to levels last seen in early 2016. This contrast points to the pronounced differences in supply availability but also to the relative lack of integration between markets for the most important farmed and wild species. Although there is a limited degree of substitutability between farmed and some wild species in the whitefish segment, high status species like cod are generally very well protected from price competition from farmed alternatives. For other key wild species, such as cephalopods, aquaculture offers no competition whatsoever.

Export revenues for many of the world's top seafood suppliers are set to take a hit in 2019, but others will benefit from additional opportunities. China is likely to see a drop in exports due to the challenges and costs it now faces accessing the US market, but this will benefit other suppliers such as Viet Nam, who can offer US buyers comparable products without the tariff burden. Furthermore, the continuing strength of the global salmon market will support further revenue growth for Chile and Norway, with the latter also seeing gains for a range of wild species, particularly cod. On the market side, developing countries will again increase their share of global import value relative to developed economies, to an estimated 33 percent. China will see a substantial increase in seafood imports, driven by higher volumes of whitefish and shrimp. The EU28 and the United States of America are likely to see marginal declines while Japan is set for a small increase.

While the overall performance of the international seafood sector can be expected to weaken in 2019, many of the current impediments to growth are temporary and the most favoured view is that global economic conditions will improve in 2020. Although the outcomes of the United Kingdom's planned exit from the EU28 and the US-led trade negotiations are still far from clear, the end of uncertainty will also be a significant stabilizing factor in and of itself. Considerably more pessimistic scenarios have also been put forward, however, and these possibilities include a general shift towards protectionist trade policies that would be severely damaging to international seafood markets. Another concern is the potential damage to sustainability efforts inflicted by trade tensions, which may see increasing volumes of fish directed away from markets whose stringent regulatory and consumer-driven sustainability requirements have in recent years been the catalyst for improvements in fishery management practices in many supplier nations.



SHRIMP

■ GLOBEFISH HIGHLIGHTS

Farmed shrimp supply stayed low in Asia

Shrimp imports contracted in the United States of America and the EU28 during the first quarter of 2019. Strong direct imports in China and good seasonal demand in Southeast Asia kept the shrimp aquaculture and export industries from another price crash during the first half of 2019. Asian shrimp farmers have reduced stocking density in their farms for the rest of the year, which may result in a production drop for 2019 below the 2018 level.

Supply

During the season's first harvest in April–June, vannamei production declined considerably in Asia as low price persisted in the international market. Farmers have reduced pond density, delayed seeding and even delayed harvests.

In India, pond seeding in Andhra during the first half of 2019 was 30–50 percent less than in the same period in 2018, resulting in lower harvests. Nearly 20–30 percent drop in production was reported in Tamil Nadu, Gujarat, Odissa and West Bengal. The extreme hot weather and 'no rain' during April–June also affected shrimp aquaculture in India.

Lower sales of seed and shrimp feed were also reported in China, Viet Nam, Indonesia, Thailand and Malaysia, indicating a smaller than projected production during the first half of 2019.

The shrimp farming season in Latin America ended in February/March 2019 and the new season began in June/July. The largest producer in that region, Ecuador, harvested over 500 000 tonnes of shrimp during the last season.

For sea-caught shrimp, the US National Marine Fisheries Service reported lower shrimp landings from the US Gulf of Mexico during the first quarter of 2019, at 7 700 tonnes down from 12 400 tonnes in the same period in 2018. Nonetheless, the average ex-vessel prices of headless shrimp in April 2019 weakened for all medium sizes (2/30 to 41/50) compared with April 2018, while price falls were marginal for larger sizes (U15, 15/20). The domestic supply source is becoming less relevant in the US market and wild shrimp is now just a specialty item offered by a few retailers and local restaurants.

In Argentina, the 2019 shrimp fishing season started with good catches of bigger sized shrimp, mostly in the 20/30 and 10/20 categories.

International Trade

Despite the record low shrimp prices since 2018, both US and EU28 imports decreased during the first quarter of 2019 in comparison with the same period in 2018, highlighting the saturated market demand and more than adequate unsold stocks along the distribution chain. However, strong imports by China and good consumer demand in other East Asian markets kept the international shrimp trade steady albeit at prices lower than in previous years.

Exports

During the first three months of 2019, India remained the top shrimp exporter but with shrinking growth (+6.5 percent in 2019 compared with +23 percent for the same period in 2018). Sales growth to China was extraordinary during this period (+595 percent at 25 000 tonnes), following lower import tariff implemented in December 2017, but exports from India suffered due to poor demand in the Western markets and corresponding low prices.

In contrast, Ecuador's export growth was significantly high (+24 percent) during the review period, supported by 542 percent (48 100 tonnes) rise in supply to the top market, China, and also to the United States of America, Canada, the Russian Federation (+52 percent), South America and other Asian markets. Ecuador's exports to Viet Nam declined by 29 percent to 34 700 tonnes. Export rise was marginal from Viet Nam, although official exports to China increased by 127 percent to 4 600 tonnes and also to Japan, Canada and the Russian Federation, but declined to the United States of America, EU28, Australia and Hong Kong SAR.

World top exporters and importers of shrimp, in 1 000 tonnes (January-March)

	2017	2018	2019	% Change 2019/2018
Exports				
India	95.8	117.7	125.4	+6.5
Ecuador	93.4	112.8	140.3	+24.3
Viet Nam*	51.8	61.6	62.9	+2.1
Indonesia	41.0	48.9	45.7	-6.4
China	37.2	39.8	35.1	-12.0
Thailand	40.5	37.4	35.9	-3.9
Argentina	32.0	34.1	33.1	-2.9
Imports				
EU28	169.6	183.2	175.6	-4.1
China	27.6 (**82)	40.1 (**100)	138.1 (**168)	+245 (+68)
United States of America	134.1	155.5	146.3	-5.8
Viet Nam	77.2	92.2	56.1	-39.0
Japan	46.0	43.8	44.1	+0.7
Republic of Korea	14.2	18.3	18.4	+0.1
Canada	10.9	11.9	12.8	+10.4

Source: National data. Note: (*) Viet Nam's exports to 30 markets; (**) including estimated unreported border trade

Imports

There were mixed trends in the global shrimp market during the first quarter of 2019. Imports declined in the EU28 and US markets. China maintained the high import growth and became the second largest import market, overtaking the United States of America. Imports also increased in Canada and the Russian Federation.

United States of America

For the first time in the decade, US shrimp imports contracted during the first quarter of 2019. Consumer demand was affected during Lent because of the unusual cold and stormy spring season in the East and Midwest, restricting dining out frequency. Subsequently, domestic stocks built up and January–March imports were nearly 10 000 tonnes lower than last year during the same period. Among the five main suppliers to the market, exports increased only from India (+17.6 percent) but declined from Indonesia, Ecuador, Viet Nam and Thailand.

The US trade war with China affected the shrimp imports from this source. As Chinese products are subject now to a 25 percent tariff, imports dropped by 60 percent during the review period. Supplies of the main item, breaded shrimp, were 47 percent lower at 3 900 tonnes, whereas the other value-added shrimp imports fell by 75 percent. Raw peeled shrimp imports declined from 4 000 tonnes to 231 tonnes and there were no imports of frozen shell-on shrimp from China to the United States of America during this period. Subsequently, there was a 16.5 percent shortfall in total US imports of breaded shrimp, even with compensated imports from Thailand, Viet Nam and Indonesia.

Japan

The availability of cheaper shrimp improved demand in 2019, particularly for semi-processed nobashi (stretched tail-on raw shrimp, used for making breaded or tempura shrimp), IQF raw peeled shrimp (widely used in noodle shops) and processed products such as cooked peeled shrimp, sushi shrimp, tempura shrimp, and shrimp pate for burger.

To cater to the Spring festival demand in April/May, the market imported 14 000 tonnes (+6.5 percent) of value-added shrimp during the first quarter of 2019, which represented 30 percent of the total shrimp imports during that period. Imports of raw shrimp decreased by 2 percent due to the waning consumer demand for shell-on shrimp. Japan imported 44 700 tonnes (+0.7 percent) of shrimp during the first three months of 2019, mainly supplied by Viet Nam, Thailand, Indonesia, India and Argentina.

European Union (Member Organization)

Shrimp demand in the world's largest shrimp market remained lacklustre, even at record low prices of both tropical and the preferred Argentinian shrimp. This trend was reflected on the imports in EU28 for the review period, which declined by 3.5 percent to 175 600 tonnes, compared with the same period in 2018. Among the top markets, imports increased only in the Netherlands (mostly meant for re-exports within the EU28) and in the United Kingdom (35 percent consisted of processed shrimp). There were lower imports in Italy (-10 percent to 13 700 tonnes), Germany (-3.9 percent to 13 100 tonnes), Belgium (-15.7 percent to 10 000 tonnes).

Shrimp imports in the top EU28 markets, in 1 000 tonnes (January-March)

	2017	2018	2019	% Change 2019/2018
Imports				
Spain	31.3	32.3	31.0	-3.7
France	26.6	26.3	25.2	-4.3
United Kingdom	16.9	17.5	20.8	+18.4
Netherlands	13.9	18.1	18.5	+1.2
Denmark	19.9	20.3	18.3	-9.8
EU28 total (including Others)	169.6	183.2	175.5	-3.2

Nearly 73 percent of the total shrimp supply came from Extra-EU28 sources, namely Ecuador (20 000 tonnes, -15.4 percent), India (16 300 tonnes, -8.7 percent), Argentina (15 300 tonnes, +23.2 percent), Viet Nam (15 300 tonnes, -4.2 percent), Greenland (13 000 tonnes, -8.0 percent) and Bangladesh (6 400 tonnes, +30 percent). Exports from India are still limited to a handful of processors certified by the national

EU28 imports/exports of shrimp (January-March)

Imports	2017	2018	2019
(1 000 tonnes)			
Ecuador	21.5	23.6	20.0
Argentina	17.7	17.8	16.4
Viet Nam	13.2	12.5	15.3
Other countries	114.5	128.2	123.9
Total	166.9	182.1	175.6
Exports			
Denmark	20.8	21.0	21.4
Netherlands	13.8	17.0	19.9
Spain	9.9	9.6	8.4
Other countries	10.7	9.4	7.3
Total	68.4	73.2	74.0

Source: Eurostat

Export Inspection Agency of India, because of antibiotic residue in farmed shrimp from this source. At the end-consumer level, demand improved during Easter in April, particularly for Argentinian shrimp available at bargain prices. Summer purchases by importers were not so great.

Asia/Pacific

There was brisk demand for the Lunar New Year celebration in January/February in Asian Oriental markets. Led by China, an estimated 335 000 tonnes of shrimp were imported in 11 Asia/Pacific markets during the first quarter of 2019, which was 34 000 tonnes more than for the same period last year. In addition, some lion shares of local production in South East Asia went to the domestic fresh market at strong prices during this period.

China, the world's largest producer and consumer of farmed shrimp, is a net importer of shrimp. Official imports during the first quarter of 2019 reached 138 100 tonnes (+245 percent). Another 30 000 tonnes are estimated to have entered the market from Viet Nam through unreported border trade, which has been declining drastically as a result of China's stringent border control of unreported trade with Viet Nam.

Subsequently, shrimp imports in Viet Nam during the review period dropped by 39 percent, with decreasing supplies from Ecuador

(-29 percent), India (-68 percent), Indonesia (-91 percent), Argentina (-66 percent) and many other sources. According to China's shrimp trade association CAPPMA, frozen imported shrimp, which are cheaper than locally farmed shrimp, are increasingly used to produce value-added products. Some are also sold in the domestic market in the north, where fresh shrimp is not available. Presently, locally produced farmed shrimp are increasingly being directed to the domestic fresh and live market at higher prices.

Shrimp imports in Asia-Pacific, in 1 000 tonnes (January-March)

	2017	2018	2019	% Change 2019/2018
Imports				
*China	82.0	100.1	168.1	+68.0
*Viet Nam	77.2	92.2	56.1	-39.0
Japan	46.0	43.8	44.1	+0.7
Republic of Korea	14.2	18.3	18.4	+0.1
Taiwan Province of China	7.4	10.0	11.1	+10.5
Hong Kong, SAR	10.9	11.9	11.0	-7.3
Australia	6.0	8.1	7.9	-26.0
Malaysia	5.2	7.6	5.9	-22.5
Singapore	5.2	5.6	5.3	-4.2
Thailand	5.2	5.8	4.9	-15.1
New Zealand	1.2	1.2	1.9	+27.6

Source: **estimates*

During the first quarter of 2019, some 57 percent of China's shrimp exports consisted of processed shrimp, while unprocessed raw shrimp exports declined by 26 percent.

China imports/exports of shrimp, in 1 000 tonnes (January-March)

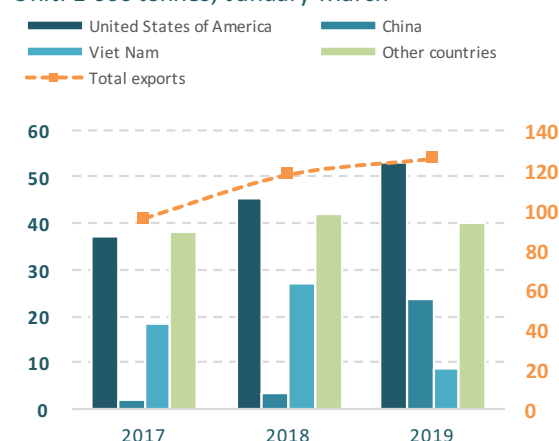
Imports	2017	2018	2019
Ecuador	1.9	7.5	48.1
India	2.2	3.6	24.8
Saudi Arabia	0.0	0.0	22.3
Other countries	23.5	29.0	42.9
Total	27.5	40.1	138.1
Exports	2017	2018	2019
Japan	5.9	4.9	5.0
United States of American	7.5	8.4	4.8
Taiwan Province of China	3.1	3.4	4.4
Other countries	22.6	24.5	22.4
Total	39.0	41.3	36.6

Source: *China Customs, estimates*

India | Exports | Shrimp

Top three destinations

Unit: 1 000 tonnes, January-March

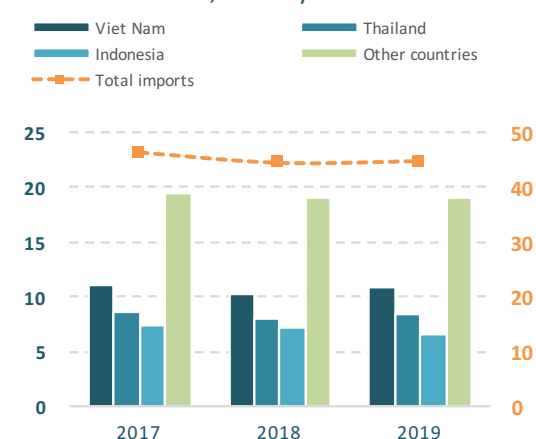


Source: *Ministry of Commerce, India*

Japan | Imports | Shrimp

Top three origins

Unit: 1 000 tonnes, January-March



Source: *Japanese Ministry of Finance*

USA | Imports | Shrimp

Top three origins

Unit: 1 000 tonnes, January-March

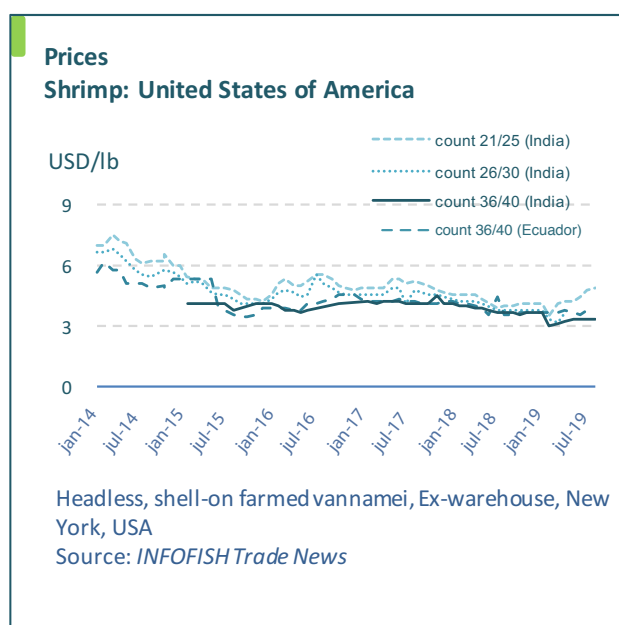


Source: *US-NMFS*

Local demand for head-on fresh shrimp in other southeast Asian countries (Singapore, Malaysia, Thailand, Viet Nam) remains good at stable prices, compared with the volatile international trade.

Price

There has been no meaningful recovery in export prices since the price crash in April 2018, even though production was seasonally low during January–March 2019. During this period, the average import prices of frozen shell-on shrimp in the United States of America were USD 1.20–1.40 per kg lower than in the same period of 2018 for most of the sizes except un/15 and 15/20, which were short-supplied in the market and at origin. This low-price situation also impacted the domestic US wild caught shrimp and Argentinian sea shrimp. In June 2019, prices of Argentinian large sizes shrimp in Europe dropped by EUR 0.20 per kg.



Outlook

Pond stocking in India during the main farming season of May–July has been much lower this year, suggesting a continuation of supply shortage for the rest of the year. Heavy rainfall in July affected production in the southern and eastern aquaculture belts of the country. Indian industry sources indicate a 30–40 percent production drop in 2019 compared with 2018. Production is likely to be lower in Indonesia

as well during the next harvest at the end of August. In China, the outcome of the seasonal first harvest in June is not encouraging either.

In Argentina, supply from shrimp fisheries in the northern part of the country has contributed to sharp inventory built-up and prices are now descending quite rapidly. European importers are taking advantage of the favourable conditions and are stocking up for the coming months. Further price declines are likely, with good catches expected to follow the recent opening of the most important shrimp fishery on 11 June 2019.

After a successful large production of 500 000 tonnes and good sales in Ecuador this year, farmers are targeting for higher production in 2019 to increase exports to East Asia and Latin America. In Honduras, production is forecast to rise by 10 percent in 2019 compared with the harvests of 47 600 tonnes in 2018.

In the marketplace, shrimp consumption is likely to increase in the summer months between June and August in the Northern hemisphere and also in Japan during the corresponding Obon festival and school holidays.

US cumulative imports for January–May 2019 show an almost 2 percent decrease from last year's volume. As of mid-July, US trade inquiry for Indian shrimp was extremely poor with no movement in prices. These are bad news for shrimp farmers, who may opt to reduce production for the rest of the year. During this period, Japanese imports of value-added shrimp maintained the positive growth and imports in China again increased by 217 percent compared with January–May 2018, with a 600 percent rise in imports from India and 430 percent from Ecuador. Shrimp packers worldwide are likely to focus more on the East Asian markets.

TUNA

GLOBEFISH HIGHLIGHTS

Frozen skipjack prices declined to record low in July

Last year's positive demand trend for canned tuna continued during the first quarter of 2019, with increased imports of higher value products in the United States of America and Europe. Demand for non-canned tuna, particularly frozen fillet, is enjoying increasing sales opportunities worldwide at premium prices.

Raw Material Supply

The supply situation of frozen skipjack remained stable with good catch levels in the Western and Central Pacific during April–June 2019. Thai tuna packers were well supplied during the first half of the year along with carried overstocks from 2018. Total imports of frozen tuna in Thailand during January–March declined by 19 percent to 162 300 tonnes, with reduced procurement of skipjack (-18.3 percent) and yellowfin tuna (-29 percent) compared with the same period of last year. Subsequently, skipjack prices started to weaken again starting in April and reached USD 1 050 per tonne in mid-July. Moderate catches in the Indian Ocean facilitated regular transshipment to tuna packers worldwide.

However, canneries in the Eastern Pacific were rather poorly supplied until April, as catches were slow to moderate until then. The

situation started to improve in May. For raw materials, packers in Ecuador had to depend on the Western Pacific landings and also on transshipment from the Indian Ocean. During the first quarter of 2019, Ecuador imported 13 400 tonnes of raw material with a 50/50 share of skipjack and yellowfin tuna in this procurement.

Catches in the Atlantic Ocean were slow to moderate during this period. European packers had to rely on imports of raw tuna and cooked loins. Raw frozen tuna imports in Spain were 15 percent higher at 42 000 tonnes during the review period, along with an equal quantity of imports of cooked loins for reprocessing.

Fresh and frozen tuna market (non-canned)

Quantitative global trade for non-canned tuna is relatively small in comparison with the canned/processed tuna, including cooked loins. However, in recent years, consumer demand for fresh and frozen tuna, particularly fillets, has increased considerably in the same market areas where canned tuna has been an established product for decades. Although much more expensive than canned/pouched products, fresh and frozen tuna fillets/loins and steaks seem to have emerged as an alternative tuna item to customary canned tuna consumers.

During January–March 2019, an estimated 13 000–15 000 tonnes of fresh tuna and 35 000–36 000 tonnes of frozen tuna fillet (estimated live weight of 100 000 tonnes) entered the international trade.

United States of America

Positive market trend attracted more supplies of sashimi and non-sashimi grade tuna from global sources in the US market. Consumption improved during the 2019 Lent, particularly in the West Coast, where the weather conditions

were favourable. Summer demand is likely to be much higher across the country.

Imports of both fresh and frozen tuna increased in the US market during the first quarter of 2019, which endorses the market's positive demand trend.

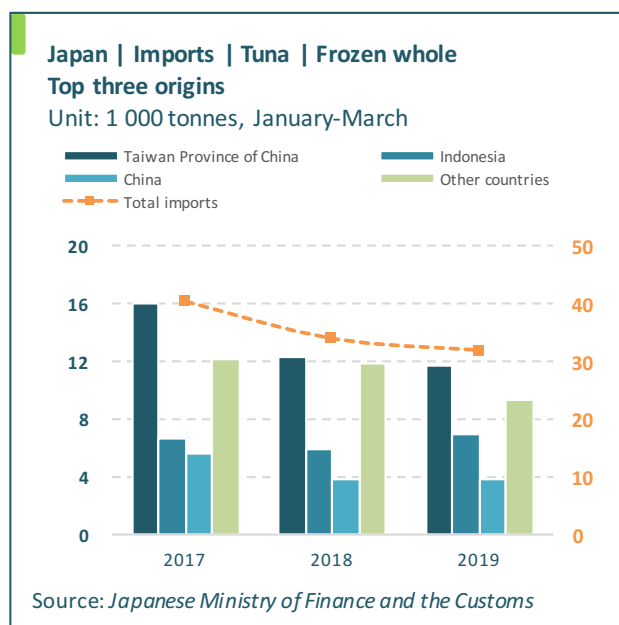
Imports of fresh and frozen tuna for non-canned usages in the United States of America (January-March)

	2018	2019	% Change 2019/2018
Tuna			
Fresh, whole	5 391	5 468	+2.8%
Frozen, dressed	721	1 150	+60.0%
Frozen fillet	8 091	9 943	+23.0%
Total (tonnes)	14 203	16 559	+16.6%

Source: US NMFS

Japan

Sashimi tuna consumption in Japan normally improves during the winter months. But this year, imports of both whole fish and fillets declined during January–March and total tuna imports hit a record low at 47 500 tonnes, some 6.3 percent lower than during the same period in 2018. Consumption only improved during the April/May Spring festival period.



The cheaper Atlantic salmon has progressively taken away the share of fresh tuna in Japan's domestic sashimi trade. Fresh salmon imports were stable during this period at 4 700 tonnes (+1.4 percent), while fresh tuna imports were only 2 800 tonnes.

European Union (Member Organization)

Traditionally, non-canned tuna was popular in France, Italy, Spain and Portugal. Frozen fillet, which has longer shelf life, is preferred over fresh whole tuna. Demand for tuna fillet is also on the rise in the Netherlands, Germany, United Kingdom, Belgium and in other EU28 markets. During the review period, air-flown fresh tuna imports in the EU28 market were 16.6 percent lower at 2 600 tonnes. However, frozen fillet imports increased by 21.4 percent to 8 900 tonnes, mainly sourced in Asia and Latin America.

Other Markets

Frozen fillet demand remained strong in the Russian Federation, where imports increased by 42 percent to almost 1 000 tonnes. Imports were higher in Norway, but softened in the Swiss market. In Asia, China imported more fresh bluefin tuna (+47 percent at 100 tonnes) and yellowfin tuna (+76 percent at 50 tonnes) for the restaurant trade. Imports of sashimi grade tuna and fillet also increased in southeast Asian markets, namely the Republic of Korea, Hong Kong SAR, Thailand, Singapore and Malaysia.

Canned tuna trade

This trade maintained the positive curves of 2018 throughout the first quarter of 2019. Cheaper skipjack prices helped to increase sales worldwide.

Exports

Thailand increased exports in most markets in the Middle East. However, exports faltered slightly to its top market, the United States of America. Thai exports of canned tuna increased to Chile and Peru. For Ecuador, exports to its top market in the EU28 increased by 26.5 percent to 33 000 tonnes, during the first quarter of 2019 compared with the same period in 2018, and one third of these were cooked loins.

Spanish exports, which are mostly targeted to intra-EU28 markets, increased sales to Italy, France, Austria, Romania, Czech Republic and Poland, but declined to Portugal, Germany, the United Kingdom and the Netherlands.

Imports

There were mixed trends in the world trade of canned/processed tuna during the first quarter of 2019. US imports declined slightly for 'tuna in brine' and cooked loins. On the other hand, the positive demand trend for higher value processed tuna continued in the country. The EU28 imported more cooked loins. Canned tuna demand was strong throughout the Middle East, but remained lacklustre in East Asia.

World top 6 exporters and importers of canned/processed tuna, in 1 000 tonnes (January-March)

	2017	2018	2019	% Change 2019/2018
Exporters				
Thailand	122.6	114.4	128.2	+11.8
Ecuador	54.8	46.6	54.4	+16.8
Spain	24.3	25.1	25.8	+2.7
China	15.3	18.8	24.4	+20.1
Philippines	17.2	18.3	18.7	+2.2
Indonesia	16.4	19.0	19.0	+8.1
Importers				
United States of America	44.2	52.4	49.6	-5.6
EU28	191.5	173.6	192.5	+10.9
Japan	13.6	13.8	13.8	+0.2
Australia	13.9	11.3	11.3	-5.2
Saudi Arabia	8.9	9.3	13.8	+48.7
Canada	8.2	6.0	7.2	+21.5

North and South America

The slight decline in US imports of canned tuna (-5.6 percent) could be attributed to lower imports of cooked loins and old-fashioned canned 'tuna in brine'. Conversely, imports of light meat and white meat tuna in-pouch, in-cups and other convenient packs increased by 18 percent, confirming consumers preference for better quality products. Among the top exporters to this market, supplies declined from Thailand, but increased from Ecuador and Viet Nam. After a decline in 2018, Canadian imports increased by 21 percent to 7 200 tonnes in the first quarter of 2019, with higher supplies from Thailand, the Philippines and also higher value tuna imports from Italy.

In Latin America, canned tuna imports declined in Colombia (-12.7 percent, 9 300 tonnes), Argentina (-23 percent, 6 300 tonnes) and Brazil (-69 percent, 2 100 tonnes), but increased in Chile (+49 percent, 4 100 tonnes) and Peru (+127 percent, 4 700 tonnes), affecting exports from Ecuador.

European Union (Member Organization)

The consumption pattern of canned/prepared tuna in the EU28 was positive, as imports of cooked loins for reprocessing, as well as canned/pouched tuna for direct consumption, increased during the first quarter of 2019, compared with the same period in 2018. Imports of cooked loin imports were significantly high at 66 000 tonnes (+26.4 percent), with increased procurement by Spain, France and Portugal, but drops in Italy (-8.8 percent). Soft prices of skipjack obviously contributed to this development, as some 73 percent of skipjack imports were cooked loin.

Extra-EU28 imports during the review period increased by 12.4 percent to 143 700 tonnes, in which 45 percent were cooked loins (+25.4 percent, 64 200 tonnes), mainly supplied by China, Ecuador, Indonesia, Viet Nam and Papua New Guinea. Supplies of canned tuna for direct consumption from non-EU28 sources also increased by 3.8 percent to about 80 000 tonnes.

Top EU28 importers and canned and preserved tuna, in 1 000 tonnes (January-March)

	2017	2018	2019
Importers			
Spain	39.7	37.3	55.2
Italy	43.1	34.4	32.4
United Kingdom	23.7	19.7	23.9
Other countries	85.1	82.0	81.0
Total	191.5	173.5	192.5

Source: Eurostat

Other Markets

Imports increased in the Russian Federation (+85 percent, 1 400 tonnes) and in Norway (+10 percent, 840 tonnes), but the Swiss market remained soft (-23 percent, 2 000 tonnes).

Asia/Pacific & other Markets

Canned tuna imports were stagnant in Japan, as domestic production increased, supported by the cheaper raw material prices.

It is also interesting to observe the ‘poor’ demand pattern for canned tuna in many East Asian markets where fresh seafood is preferred. During the January–March 2019 low-priced period, canned tuna imports declined in Hong Kong SAR, Malaysia, Singapore and some other regional markets.

Since canned tuna is popular in the Middle East, cheaper import prices induced higher demand in most of the large and small markets in that region (Saudi Arabia, Egypt, Libya, Yemen, Kuwait, Lebanon, Syria and others).

Price

The often fluctuating raw material price remains a major issue in the canned tuna trade. During the first half of 2019, the price strengthening of frozen skipjack lasted only three months between February and April and started to weaken starting in May (USD 1 300 per tonne), sliding further to USD 1 050 per tonne in July (52 percent decline in three months) when FAD fishing closure started in the Western and Central Pacific fishing grounds. The average price for frozen skipjack between January and July was 17 percent lower than the corresponding period in 2018. Meanwhile, fuel prices, which were the major cost component in fishing, have started to move up due to the political tension in the Middle East, the main fuel supplying region.

Outlook

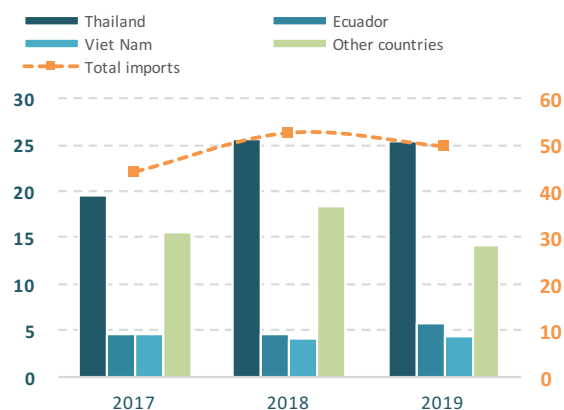
The three-month FAD fishing closure in the Western and Central Pacific started on 1 July 2019. Subsequently, tuna landings have slowed down to a moderate level. As of July, the raw material inventories in Thailand were close to full capacity and there were still backlogs of carriers at Bangkok Port. Hence, the impact of low catches on prices has yet to happen. Price may increase with lower catches during the FAD closure period.

Fishing in the Eastern Pacific remains good and raw material inventories at local canneries

United States of America | Imports | Tuna | Canned/processed

Top three origins

Unit: 1 000 tonnes, January-March

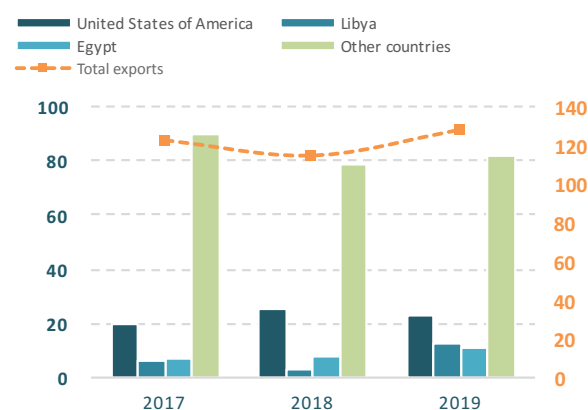


Source: NMFS

Thailand | Exports | Tuna | Canned/processed

Top three destinations

Unit: 1 000 tonnes, January-March

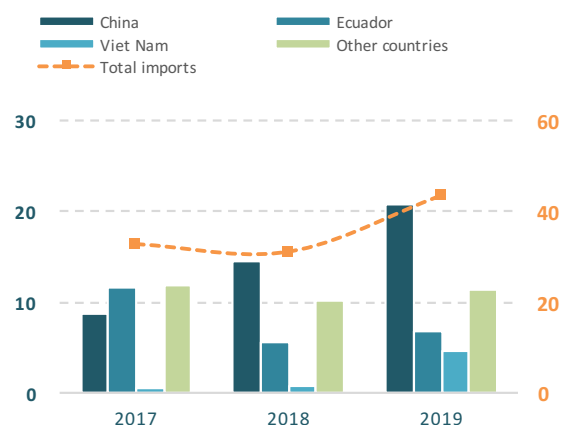


Source: Thai Customs

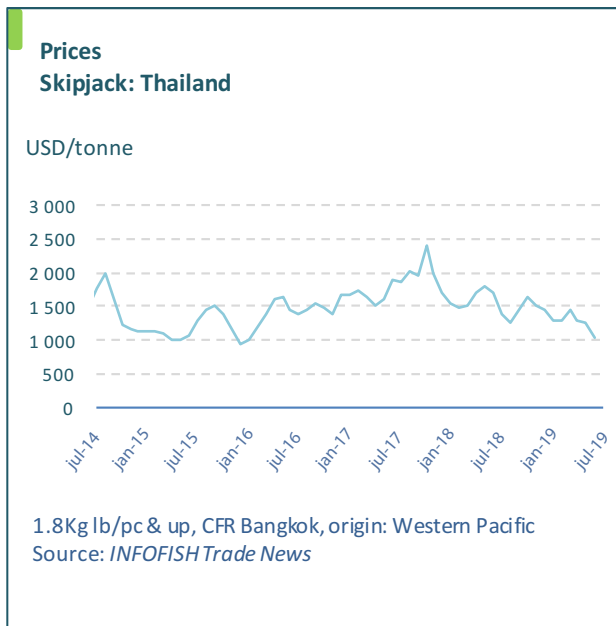
Spain | Imports | Tuna | Cooked loins

Top three origins

Unit: 1 000 tonnes, January-March



Source: Agencia Tributaria



remain high. There is a large number of tuna vessels waiting in port to unload, but there has been a reduction in the number of carriers arriving from the Indian Ocean and the Western and Central Pacific. Skipjack prices have fallen slightly, while yellowfin tuna prices remain stable. The first two-month IATTC ‘veda’ will commence on 29 July. Many vessels are likely to choose this ‘veda’ as market conditions are very poor at present.

As of July 2019, catches in the Indian Ocean remain low and raw material inventories at canneries in that region are moderate. Skipjack prices continue to weaken but yellowfin tuna prices are stable. Some vessels remain at port due to the poor fishing and low prices.

Catch rates in the Atlantic Ocean remain moderate, while raw material inventories at local canneries have improved slightly to low-to-moderate. Skipjack and yellowfin tuna prices in Spain have decreased, while the market price for cooked, double cleaned yellowfin tuna loins remains steady.

Consumer demand for canned tuna has been weak this summer in the western markets except for higher value products. However, lower raw material prices may lead to lower retail prices and encourage supermarket promotions of canned tuna. The import trends in the large Middle East market is likely to continue for the rest of the year.



GROUND FISH

GLOBEFISH HIGHLIGHTS

Slightly revised quotas, but stable supply situation

The International Council for the Exploration of the Sea (ICES) has made some slight changes in their quota advice for 2020 but, in general, the supply situation is expected to be relatively stable in the months to come. This should support the high cod prices, but there may be some consumer movement away from cod and into less expensive whitefish.

Resources

In June, ICES revised its advice for groundfish quotas for 2020 slightly. For Barents Sea cod, ICES recommends a total allowable catch (TAC) of 698 672 tonnes in 2020, up 2 percent from its 2019 proposal. Haddock TAC is proposed at 215 000 tonnes for 2020, up 41 percent from 2019.

Iceland's cod quota should not exceed 272 411 tonnes for 2020, according to ICES, an increase from the 264 437 tonnes in 2019. ICES recommends a reduction in Iceland's haddock quota, from 57 982 tonnes in 2019 to 41 823 tonnes in 2020. Thus, a slight increase in Barents Sea groundfish supplies is expected for 2020, but in general the outlook is for a relatively stable supply situation in this region.

The Baltic cod stock is in trouble. According to ICES, the levels of this species are currently so low that even a total ban on fishing in 2020

would not be enough to save the situation. Denmark has proposed a 70 percent reduction in 2019 and a total ban in 2020.

The North Sea cod stocks have been in decline for some time. During the 1980s, this fishery collapsed altogether, but has recovered slowly since then. After the Maximum Sustainable Yield (MSY) advice was introduced in 2013, North Sea cod quotas have been above the recommended MSY, and the stocks have consequently not had a chance to recover fully. For 2020, ICES has recommended that catches should not exceed 10 457 tonnes, down from the TAC of 29 437 tonnes in 2019 and 53 000 tonnes in 2018.

Canada's Department of Fisheries and Oceans (DFO) announced in June that the 2019 catch limit for cod in the northern cod fishing zone (Newfoundland and Labrador) was set at 12 350 tonnes. This represents a 30 percent increase compared to 2018. The 2018 quota was 9 500 tonnes, or 27 percent lower compared to 2017.

The EU28 and Norway agreed in April to reduce the 2019 saithe quota for the North Sea, Skagerrak and Kattegat saithe to 103 327 tonnes from the previously agreed 135 035 tonnes.

The Russian Federation fishery scientific institute has approved the 2020 TAC for Alaska pollock at just over three million tonnes, about the same as in 2019. The Russian Federation TAC for Pacific cod was set at 185 750 tonnes, up 7 450 tonnes from 2019.

Processing

Viet Nam seems set to take over as the leading processing country for groundfish, according to observers and the statistics support this view. In 2018, Vietnam processed about 60 000 tonnes of Alaska pollock, up from 10 000 tonnes in 2015. While China is processing much more than this, the Vietnamese industry is definitely growing in this field.

RECENT NEWS

The Russian Federation has the ambition to market more of its seafood products on the domestic market. As part of this effort, Russian Federation processors are introducing new products there. One Russian company has recently introduced a range of Alaska pollock products in Russian Federation retail chains. The products include Alaska pollock fillets, mince and fish sticks. These products are processed partly on board the company's vessels, and partly by a Danish producer.

This development is part of a Russian Federation plan to build new processing capacity in the country itself. Previously, large amounts of Russian Federation whitefish were shipped to China for processing, but as new factories and new factory vessels become operational between 2020 and 2024, the domestic value chain will be built. But it is a slow process, according to a spokesman for the Russian Pollock Catchers Association.

The country has a number of high-quality processing facilities and may overtake China as the leading groundfish processor in the coming years.

Trade

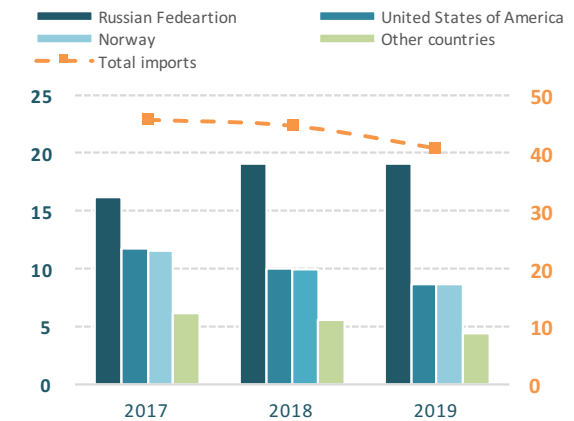
Several seafood products from China, such as processed cod, haddock and Alaska pollock, were expected to be subject to a 25 percent penalty tariff in the United States of America. After the G20 meeting in Osaka in June, everything seems to be put on hold. The United States of America and China are carving a new trade agreement, according to US and Chinese authorities.

The US government recently bought large amounts of American catfish for food assistance programmes. The Government has also placed a bid for USD 2 million worth of Alaska pollock for the National School Lunch Program and other

China | Imports | Cod | Frozen whole

Top three origins

Unit: 1 000 tonnes, January-March

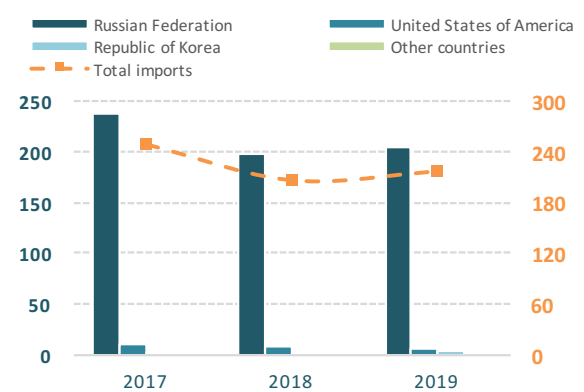


Source: China Customs, estimates

China | Imports | Alaska pollock | Frozen whole

Top three origins

Unit: 1 000 tonnes, January-March

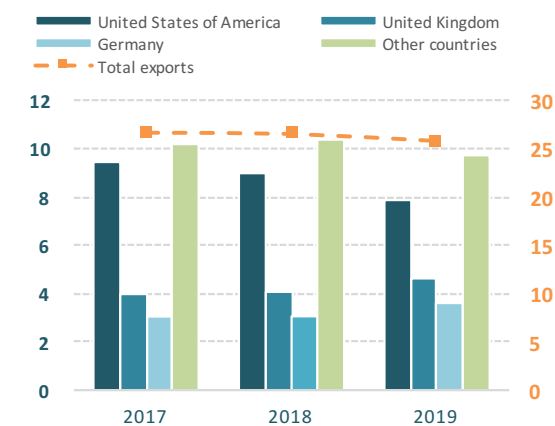


Source: China Customs, estimates

China | Exports | Cod | Frozen fillets

Top three destinations

Unit: 1 000 tonnes, January-March



Source: China Customs, estimates

food assistance programmes. This brings the total government purchases of Alaska pollock in 2019 to 13.8 million lbs (6 260 tonnes). The purchase may be seen as an initiative to help the Alaska pollock industry, which is hurt by the trade war between the United States of America and China.

Chinese imports of cod during the first quarter of 2019 dropped by 8.8 percent compared to the same period in 2018. Imports from the Russian Federation remained at the same level as in 2018 and it is still the largest supplier to China. Imports from the United States of America and Norway declined.

In line with the reduction of imports of round cod, Chinese exports of frozen cod fillets declined by a mere 2.8 percent to 25 800 tonnes during the first quarter of 2019. Shipments to the United States of America dropped, while shipments increased to the second and third markets, the United Kingdom and Germany.

Norwegian exports of whole frozen cod increased to 20 300 tonnes during the first quarter of 2019, about 23 percent more than during the same period in 2018. Total cod exports from Norway went down by 9.1 percent to 63 400 tonnes, but the value of exports increased by 5.7 percent due to a higher average export price.

Thai exports of surimi increased by 35 percent during the first quarter of 2019 compared to the same period in 2018, reaching 7 200 tonnes this year, compared to 5 300 tonnes last year. Cambodia became the main importing country of surimi from Thailand, importing some 1 600 tonnes in the first three months of 2019, compared to nil in the previous year.

Prices

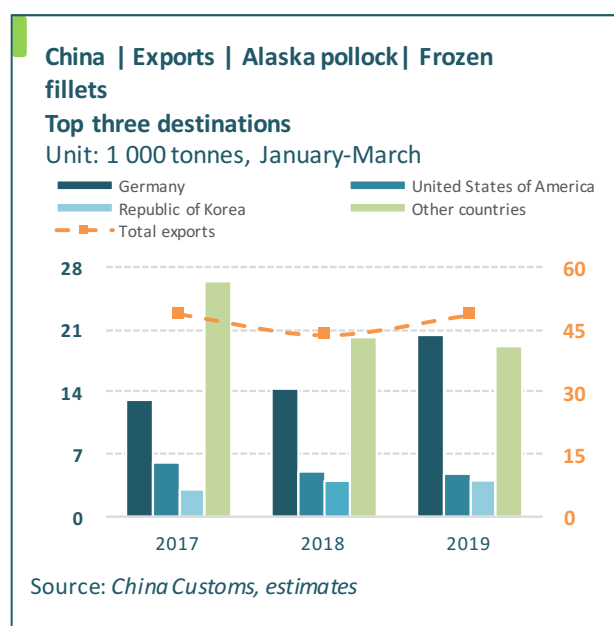
Prices for Russian Federation H&G Alaska pollock increased strongly in the beginning of the year, according to Chinese processors who import Russian Federation pollock for processing. Just after Chinese New Year, the price was at about USD 1 400 per tonne, but shortly after it increased to USD 1 450 and then reached USD 1 560 per tonne in late April. The main reason for price increases seems to be poor catches and tight supplies of larger size fish.

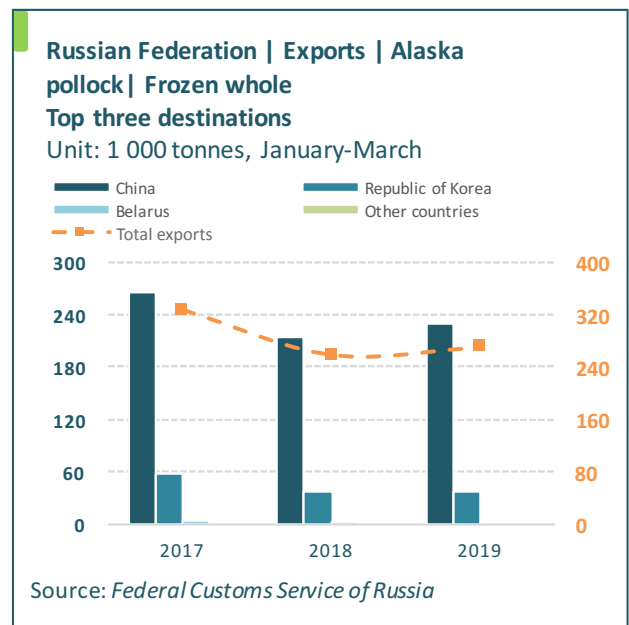
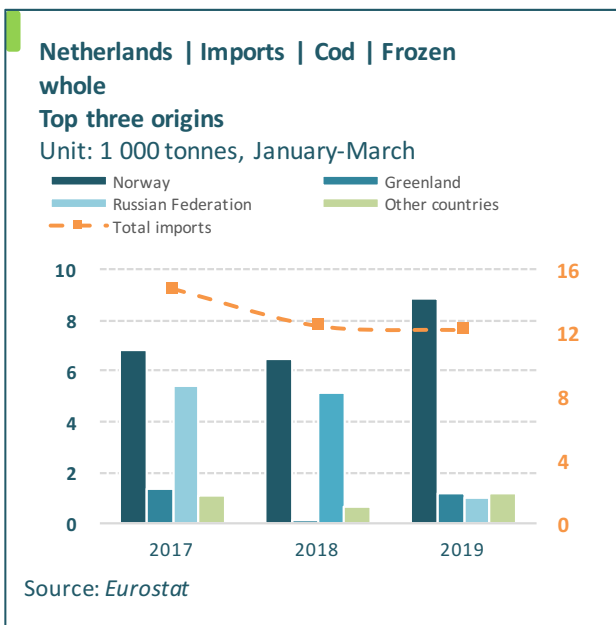
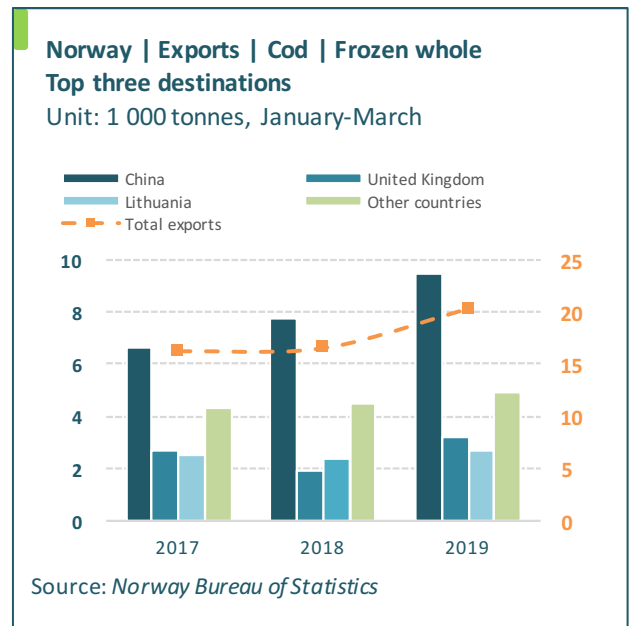
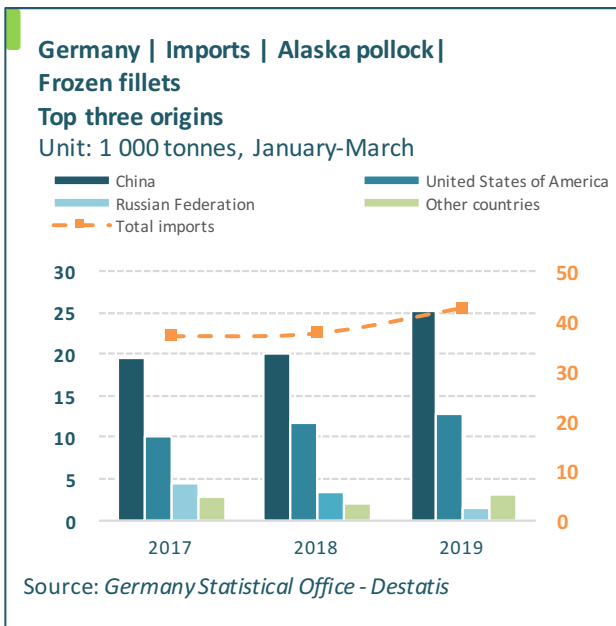
Alaska pollock prices were still rising in May. To complicate matters further, the European Commission was contemplating putting a tariff on US seafood in retaliation for the United States of America paying subsidies to airline producer Boeing, an act seen to hurt Europe's Airbus. It seems that the United States of America is facing a trade war on two fronts.

Latin American hake prices have been pushed down by competition from Alaska pollock. Prices of frozen hake blocks went down by 15–20 percent over the past year.

Cod prices continue their upward trend. Frozen whole prices are just marginally up, as are fresh whole cod prices. Frozen cod fillet prices continue to climb upwards, but prices for fresh cod fillets seem to have reached a peak in December 2018 and are now on their way down. The high cod prices are causing French consumers to search for alternative, cheaper species. Flatfish, such as yellowtail flounder, are seeing rising demand because of this. This represents a shift of consumer interest on the French market. Just five years ago, the French consumer was not very interested in flatfish, but the high cod prices have changed that.

Price rises for cod on the German market may have been pushed too high. In May, consumers were reacting to increasing prices for Alaska pollock, and sales through a main retail chain dropped dramatically. Retail prices were





increased by 13–17 percent. Some consumers have moved to other species, like saithe, but prices for saithe are also going up.

Outlook

The groundfish quotas for 2019 were set quite low. There may be slightly more groundfish landed through the rest of 2019 and in 2020 than previously expected, but the change is marginal, so the overall supply situation should remain relatively stable. The situation varies greatly from region to region. In the Barents Sea, the supply situation is stable due to careful management over many years. In the North Sea, cod stocks are in trouble, and major reductions

in this fishery are expected. The Baltic Sea is in worse state and even a total ban does not seem to be enough to save the stocks.

On the other side of the Atlantic, the Canadian cod fishery in Newfoundland and Labrador is picking up a bit, but further south on the US East Coast there are still problems.

The Alaska pollock quotas are quite stable, with the Russian Federation quota being practically the same as in 2019. Over the past ten years, the Russian Federation Alaska pollock quota has varied between 2.76 and 3.21 million tonnes. Some of the large Russian Federation fishing companies are warning that a more cautionary approach should be adopted.



The high cod prices are expected to remain or perhaps edge upwards and this may have an effect on consumer behaviour. In France and Germany, consumers are already looking at alternative species, both other groundfish and salmon, as alternatives to cod.

CEPHALOPODS

GLOBEFISH HIGHLIGHTS

Tight supplies and high prices

Lower octopus quotas in Morocco will mean a tighter supply situation, and probably rising prices. For squid, supplies might be a bit better, but squid prices keep climbing slowly on major markets.

Octopus

Octopus fishing in North Africa started on 15 June in Mauritania and on 1 July in Morocco. The quota was small, about one third of the winter quota, and consequently prices shot up again. Initial prices were 6–7 percent higher than in December 2018. However, the high prices have forced some importers to switch to poorer qualities and some companies in the hotel, restaurant and catering industry (HORECA) have dropped octopus altogether. It has become difficult to find octopus on the Spanish market because many retailers stay away from octopus, fearing to get stuck with quantities of unsold product due to the high price.

As global demand for octopus increases, efforts to develop aquaculture production have increased. So far, the technology turned out to be difficult, and no-one has succeeded on an industrial scale. Scientists are still hopeful and expect that with further investments, research and testing, a proper technology for farming octopus may become a reality soon.

RECENT NEWS

A recent report published by the New York University argues against octopus farming, not from a technological perspective, which has so far been the usual criticism, but from a moral and ethical point of view. The researchers argue that humans should not eat octopus at all because of the animal's many "exceptional abilities".

Such arguments do not seem to deter researchers, though. In April, it was announced that scientists at the Spanish Oceanographic Institute in Vigo had succeeded in growing octopus in captivity to a market size of 1.2–2.0 kilograms. Production is still very small though, with only 50 animals it must be labelled "experimental". The success reported has taken 20 years of research, funded in part by Nueva Pescanova, as part of a long-term plan to breed a number of "new species" such as octopus, cuttlefish, grouper and shrimp.

Trade

During the first quarter of 2019, Japanese imports of octopus were level with imports during the same period in 2018. There was a slight shift in the relative importance of the major suppliers as China shipped somewhat more (2 600 tonnes compared to 2 200 tonnes in 2018), while Morocco shipped less (1 900 tonnes in 2019 compared to 2 400 tonnes in 2018).

The Republic of Korea imported more octopus during the first quarter of 2019 (18 300 tonnes compared to 16 400 tonnes in the first quarter of 2018). Viet Nam shipped more octopus to the Republic of Korea, while

China registered a small decline in shipments to the Republic of Korea during this period compared to the same period in 2018.

SMUGGLED OCTOPUS EXPOSED

Organized crime has been involved in octopus smuggling from Morocco for some time, but now the authorities have uncovered their methods. In January, a small shipment from Mauritania to Morocco exposed the technique. The importer transported a small amount, five tonnes, but on the documentation for the shipment, it stated 25 tonnes. On his way through Morocco to Spain, the driver picked up the extra 20 tonnes of illegally caught octopus and entered the EU28 with the “correct” amount of octopus, as stated on the documentation.

Squid

The Argentine *Illex* season was a bit of a disappointment this year, but just as the season seemed to be over, another opportunity opened up in the northern waters of the country. The National Institute of Fisheries Research and Development (INIDEP) suggested that fishing of *Illex* in the northern sector from 15 July to 31 August should be allowed. There is an apparent abundance of squid in that region, which gives the industry an opportunity to improve its results this year.

Loligo catches by the Galician fleet operating in the Falkland Islands (Malvinas) waters have been very good during the first season of 2019, which closed at the end of April. The Spanish fleet, which returned to Vigo after ending the fishing, caught about 51 000 tonnes, a record catch for the spring season.

The new giant squid law in Chile has created a bit of a controversy and uncertainty in the industrial fisheries sector in the country. So much that the country’s Minister of Economy, Development and Tourism has now promised to push for changes in the law. The law restricts

Japan | Imports | Octopus

Top three origins

Unit: 1 000 tonnes, January-March



Source: Japan Customs

Republic of Korea | Imports | Octopus

Top three origins

Unit: 1 000 tonnes, January-March



Source: Korea Trade Statistics Promotion Institute

Japan | Imports | Squid and cuttlefish

Top three origins

Unit: 1 000 tonnes, January-March



Source: Japan Customs

the capture of giant squid to artisanal hand-line fishers and will go into effect in August. However, strong protests from the industrial fleet and especially the crews in this fleet, have prompted the Minister to take another look at the law. The workers claim that the law will put hundreds of them out of work and cause economic problems for a number of the fishing companies.

Trade

Squid consumption in the United States of America is very low. At four ounces (113 grams) per person per year, that equals about one serving of calamari rings. Some companies view this as an opportunity. Eating habits in the United States of America are changing, and it is particularly the “millennials” (those born between 1980 and 2000) who are leading this development. They are open to trying new foods, which coupled with active product development on the part of the processors, is expected to push squid consumption up. For several years, the United States of America imported around 70 000 tonnes of squid per year, but in 2018, there was an increase to over 74 000 tonnes. During the first five months of 2019, US squid imports jumped by 64 percent compared to the same period in 2018.

Peru is experiencing increasing demand for its giant squid, particularly from Asia, but also from Europe. China, the Republic of Korea and Thailand are all buying more squid from Peru. The country expects 2019 to be a good year for squid exports. In 2017, the trade was hit by the effects of El Niño, but recovered in 2018, and so far, it looks quite good for 2019. In the first three months of 2019, Peruvian exports of squid reached 68 500 tonnes, more than double the amount exported in the first quarter of 2018. China was the main buyer of squid from Peru, increasing shipments from 3 000 tonnes in the first quarter of 2018 to over 27 000 tonnes in the same period of 2019.

During the first quarter of 2019, Japan increased its imports of cephalopods by 10 percent by volume and 11.1 percent by value compared to the same period in 2018. Total cephalopod imports during the review period amounted

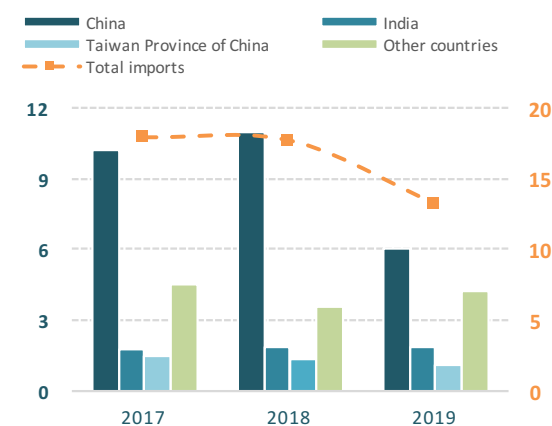
TROPICAL SQUID UNAFFECTED BY HIGHER CO₂ LEVELS

Climate change is expected to affect marine life in the future, but not all of that effect needs to necessarily be bad, according to a new study undertaken by the James Cook University. The study focused on tropical squid and how it reacted to higher carbon dioxide (CO₂) levels in the water. According to the study, squid live on the edge of their environmental oxygen limitations because of their energy-consuming swimming technique.

They were therefore expected to react negatively to higher CO₂ levels in the water, but in tests made on two species (the two-toned pygmy squid, *Idiosepius pygmaeus*, and the bigfin reef squid, *Sepioteuthis lessoniana*), it was found that these two tropical species were unaffected by the higher CO₂ levels. One possible explanation is that squid may have a high capacity to adapt to environmental changes due to their short lifespans, fast growth rates, large populations and high rate of population increase.

USA | Imports | Squid and cuttlefish Top three origins

Unit: 1 000 tonnes, January-March



Source: NMFS

to 11 700 tonnes valued at USD 77.6 million. Processed products showed the greatest increases. Processed cuttlefish and squid increased by 78.3 percent in value, to USD 60.7 million, while processed octopus increased by 19.7 percent, to USD 15.3 million.

Landings of Japanese flying squid (*Todarodes pacificus*) were quite good in the beginning of the year, and significantly better than last year. Even so, prices for *Todarodes* are still high. Prices for *Todarodes* tend to follow the *Illex* prices, regardless of the actual supply situation for *Todarodes*.

Spanish imports of squid and cuttlefish slightly declined to 49 300 tonnes in the first quarter of 2019, from 50 900 tonnes in the first quarter of 2018. Larger volumes came from the Falkland Islands (Malvinas) and less from China.

Japanese imports of squid and cuttlefish amounted to 30 698 tonnes in 2019, practically the same as during the same period in 2018. As much as 68 percent of Japan's total imports of squid and cuttlefish during this period came from China.

China experienced an 18 percent drop in its exports of squid and cuttlefish during the review period, from 131 100 tonnes in 2018 to 107 500 tonnes in 2019. The biggest drop was registered for exports to the Republic of Korea.

There was a noticeable increase in China's imports of squid and cuttlefish during the first quarter of the year, from 42 100 tonnes in 2018 to 64 000 tonnes in 2019.

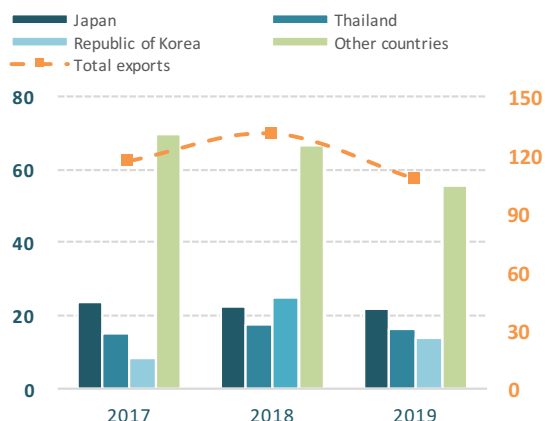
US imports of squid and cuttlefish fell during the first three months of 2019. In 2018, US imports amounted to 17 700 tonnes, while in 2019, the amount dropped to 13 200 tonnes. Most of this was due to a massive drop in imports from China, from 10 900 tonnes in 2018 to 6 100 tonnes in 2019.

Prices

Over the past year, octopus prices have varied a lot. In the summer of 2018, prices were sky high in some markets, as a result of several factors. There was a limited supply from Morocco because of stricter fisheries management, better

China | Exports | Squid and cuttlefish Top three destinations

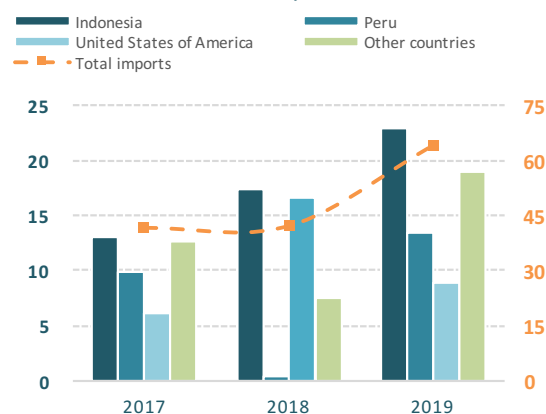
Unit: 1 000 tonnes, January-March



Source: China Customs, estimates

China | Imports | Squid and cuttlefish Top three origins

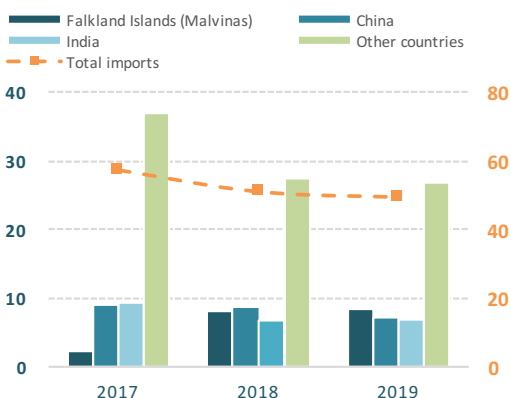
Unit: 1 000 tonnes, January-March



Source: China Customs

Spain | Imports | Squid and cuttlefish Top three origins

Unit: 1 000 tonnes, January-March



Source: Agencia Tributaria

economic conditions in important markets like Spain and Portugal, and growing popularity of octopus in new markets like the United States of America and northern Europe.

Because of the high prices, some traders started sourcing octopus in countries they had not bought from earlier, like Thailand, China, and Yemen. Mediterranean consumers did not like what they got. They claimed the quality was poorer and some restaurants cut octopus from their menus because of this. Consequently, prices fell again.

The rollercoaster performance of octopus prices caused problems for a number of traders, especially those who bought large amounts at high prices, and later were stuck with stocks they had to take a loss on. Many traders are now trading at a loss. But they keep trading because they know that the situation will return to normal, although it may take another year or so.

Many traders expected squid prices to continue to climb, after early reports of poor fishing of squid this year. The supply situation may be a bit better than first thought, but demand is good and prices will stay high in the coming months. Prices for Argentine *Illex* squid are high and rising, as landings have come to a standstill. Landings from January to April amounted to 90 000 tonnes, but in May, Argentine vessels landed only 28 tonnes in Argentine ports.

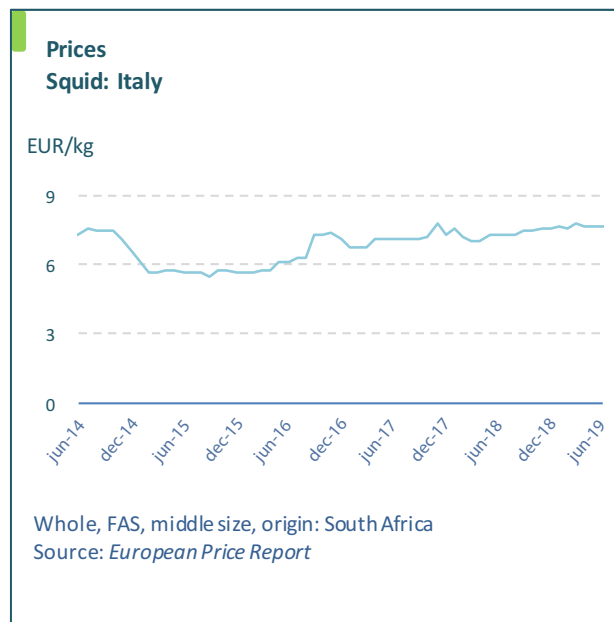
Squid prices in Europe have been rising slowly for some time and are expected to continue on this trend. Average import prices in the United States have also edged upwards.

Outlook

The small quotas for octopus in Morocco imply that the supply situation will be tighter in the second half of the year. Demand in general is good and new consumer groups are developing a taste for octopus as well as squid. This should push prices up further and hopefully stabilize them after a rather turbulent year.

The supply situation for squid is a bit more varied, with good catches by Spanish vessels fishing off the Falkland Islands (Malvinas), though other

squid fisheries are not as good. Landings in Argentina have been poor, although one hopes that the opening of the northern region could rectify that. There is good demand from Asia, not only China, and prices will continue their steady climb upwards.



TILAPIA

■ GLOBEFISH HIGHLIGHTS

US tariffs shake up tilapia sector as Chinese suppliers suffer

After multiple delays, the US authorities have acted on their threat to increase tariffs on an array of Chinese goods, including tilapia, to 25 percent. Already damaged by drawn-out uncertainty, Chinese tilapia suppliers must now face the financial consequences of the increased duties.

Production

Tilapia harvests in China, by far the world's largest producer, are forecast to reach 1.8 million tonnes in 2019, an increase of around 500 000 tonnes compared with last year.

Farmers ramped up production in the second half of 2018 and early in 2019 in an effort to ship volumes before the expected effective date of the tariff hike in December and then March, but now this incentive has disappeared.

In fact, the mounting difficulties associated with the introduction of the US tariffs has seen some Chinese tilapia producers and processors start to shift their focus towards other species such as shrimp and pangasius, meaning that previous production forecasts may need to be revised downwards. While the immediate impact of the new restrictions now faced by the Chinese

industry is on profit margins, there is also concern that the lessening importance of the sustainability-minded US market will translate into a general loosening of the standards and practices that have driven improvements in environmental and social responsibility. In the longer term, however, suppliers are not concerned about China losing its status as the top tilapia producer, mainly because it is still very difficult for other potential suppliers to compete in the low-margin, high-volume segment that China occupies.

Despite China's complete dominance of the global market for lower priced frozen tilapia, their current struggles do offer a window of opportunity for the tilapia industries in Indonesia, Thailand and Latin America to secure a firmer foothold in the United States of America.

In Latin America, Colombia has established itself as the main supplier of fresh tilapia fillets to the US market and continues to invest in sustainable development and improvement of product standards, while a number of other projects are underway elsewhere in the region.

In Mexico, now the ninth largest producer in the world with around 160 000 tonnes per year, the authorities recently declared the country free of tilapia lake virus (TiLV) after extensive analysis. Producers are encouraged to remain alert and continue to apply good production practices and enforce biosecurity measures on their farms.

In Africa, expansion continues despite ongoing challenges. Egypt is particularly interesting, as it is the second largest producer with almost 900 000 tonnes, an increase of about 80 percent over the last decade, although it has an almost non-existent export industry.

This is due to a combination of factors, including lack of consolidation, strong demand in local markets and inadequate logistics and processing infrastructure.

Markets

The recent introduction of tariffs is the latest in a range of difficulties faced by marketers of Chinese tilapia in the United States of America. The additional 15 percent now taxed on all Chinese tilapia exports to the United States of America significantly outweighs the profit margin in the supply chain, meaning that the cost must be passed down the supply chain to the consumer. Other challenges involved lingering negative consumer perception of Chinese-origin tilapia and stiff competition in the commodity whitefish segment.

In response, the focus has shifted towards other markets as well as the Chinese domestic market. Marketing campaigns aiming to improve the appeal of tilapia from a Chinese perspective have been launched, while investment is also being made to increase sales in Europe. Meanwhile, demand growth in Africa is outstripping supply, despite steadily increasing African production. Côte D'Ivoire, Burkina Faso, Cameroon, Ghana and Kenya all represented significant export markets for Chinese tilapia. Israel, Iran and Mexico are three other countries which now have substantial markets for tilapia. For Latin American producers, the United States of America is still the target of the overwhelming majority of export sales, but a concerted effort is being made to target consumers in a diverse array of other countries, including Peru, Canada, Singapore and South Africa.

Trade

After the 10 percent tariff on Chinese goods introduced in September 2018, traders expecting a tariff hike to 25 percent first in December 2018 and then in March 2019 had to scramble to adjust on both occasions, until the new rate finally took effect in May 2019. This uncertainty over the future of the trade relationship between the United States of America and China, and of course the added cost of the tariffs, has seen the flow of tilapia from China to the United States of America steadily diminish in terms of its share of total trade. Five years ago, the China-US trade flow represented around 35 percent of global tilapia trade in US dollar terms, but by 2018 this figure dropped

to around 20 percent due to diversification of suppliers by the United States of America and Chinese expansion of its export options.

Global trade in tilapia decreased, with the world's exporters shipping tilapia an estimated USD 205 million in the first quarter of 2019, down by 24 percent from the same period in 2018. The United States of America were the main responsible for this decline.

Chinese exports of frozen tilapia, in 1 000 tonnes (January-March)

	2017	2018	2019
Frozen fillets			
United States of America	14.3	9.3	8.7
Mexico	4.7	3.4	4.2
Israel	2.0	2.2	3.3
Other countries	9.2	7.7	5.2
Total	30.2	22.7	21.5
Frozen whole			
Côte d'Ivoire	5.5	4.5	4.5
United States of America	3.8	4.6	4.2
Mexico	1.7	1.3	1.6
Other countries	14.7	14.7	13.0
Total	25.7	25.1	23.3

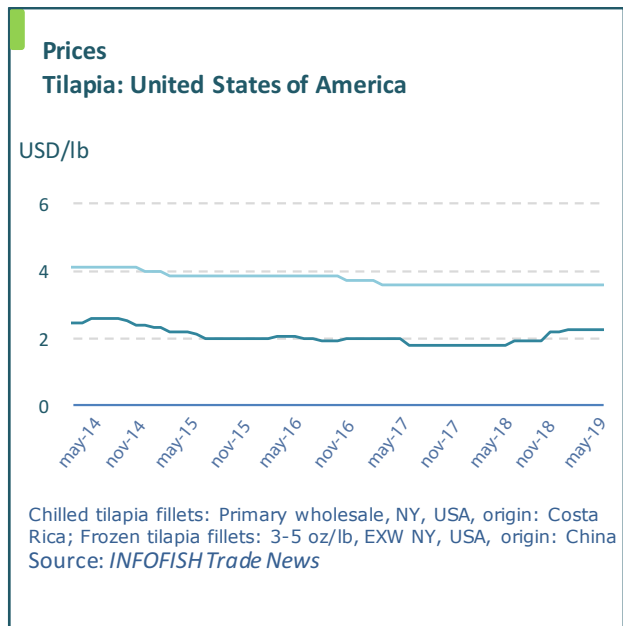
Source: TDM

US imports of frozen tilapia fillets, in 1 000 tonnes (January-March)

	2016	2017	2018
Frozen fillets			
China	30.1	28.8	18.5
Indonesia	1.6	1.8	1.7
Mexico	0.1	0.4	0.6
Other countries	0.9	0.7	1.0
Total	32.8	31.7	21.9
Frozen whole			
China	4.5	5.7	4.4
Taiwan Province of China	1.7	1.5	1.8
Thailand	0.3	0.3	0.3
Other countries	0.4	0.4	0.3
Total	6.9	7.9	6.8

Source: TDM

In fact, in the first quarter of 2019, US imports of tilapia dropped by around 23 percent to USD 134 million compared with the same period last year. China now supplies around half of this value, compared with 65 percent five years ago.



Prices

Farmgate prices for Chinese tilapia have been relatively steady so far this year, at around USD 1.02 per kg for 300–500g and USD 1.35 per kg for 500–800g fish. Prices for the larger sizes dipped somewhat in May as harvests picked up in line with seasonal trends. Meanwhile, US import prices of fresh fillets from Latin America were down around 7 percent to USD 6.18 per kg in the first quarter compared with the same period last year. Latin American frozen fillet prices were up 16 percent for the same period, to USD 6.05 per kg.

Outlook

The current tariff level in the United States of America will continue to make things extremely difficult for Chinese exporters and offer an opportunity for competitors, but the situation can change quickly if progress is made in ongoing trade negotiations between the United States of America and China. The incentive for China to invest in developing alternative markets could pay off in the long run as it will boost aggregate demand for the species. However, it will be consumers in developing countries and producing regions that will account for an increasing proportion of global tilapia demand as time progresses. Price trends will largely depend on how quickly the market can reshuffle to redistribute Chinese production and plug the gap in the US market.

PANGASIOUS

■ GLOBEFISH HIGHLIGHTS

Higher costs and more difficult market conditions see pangasius outlook worsen

Further increases in global production of pangasius are expected this year, led by the dominant supplier, Viet Nam. The near-optimal market conditions of 2018 have deteriorated and prices are now off their recent record heights.

Production

Current estimates for Vietnamese production in 2019 stand at around 1.5 million tonnes of pangasius, although some reports point to a shortage of fingerlings early in the year that could see the figure revised downwards. This follows what was a record year in 2018 for Vietnamese production in terms of harvests, which touched around 1.3 million tonnes. In addition, pangasius farming area and exports reached new records.

High price levels throughout 2018 translated into exceptionally good profits for Vietnamese pangasius farmers, serving as a catalyst for widespread investment and expansion projects. The outlook has worsened in 2019, however, following a steep decline in prices that has continued since the start of the year, and a general increase in production costs. Feed prices

are higher, labour shortage has driven up labour costs and the price of electricity, an important consideration for aquaculture operators as well as processors and feed producers, was increased by 8.4 percent in March 2019. These cost increases combined with the sharp price decline in early 2019 pushed some previously profitable producers in the Mekong Delta into the red. In response, industry leaders have called for renewed focus and investment in key areas that will ensure a higher proportion of Viet Nam's pangasius production meets the quality, food safety and traceability requirements of the more lucrative markets in the EU28 and the United States of America.

Aside from Viet Nam, other pangasius producing countries make up 55 percent of global production, but most of this production is absorbed by domestic markets. Chinese production is still relatively low, but a growing consumer base, currently supplied primarily by Viet Nam, is driving expansion. Some 20 pangasius processing factories are thought to be operating in China as of March 2019, with a production capacity of 30 000 tonnes per year.

Markets

Vietnamese pangasius marketers in the EU28 have been struggling against poor consumer perception in recent years, as well as stringent product requirements and regulatory issues. Despite the challenges, efforts to ensure and communicate the sustainability, quality and safety of Vietnamese pangasius have been met with success in some EU28 markets. Campaigns to establish pangasius fillets as a premium (rather than discount) whitefish option have been particularly effective in the United Kingdom.

Meanwhile, while the challenges Viet Nam has encountered in exporting to the United States of America have continued into 2019, the

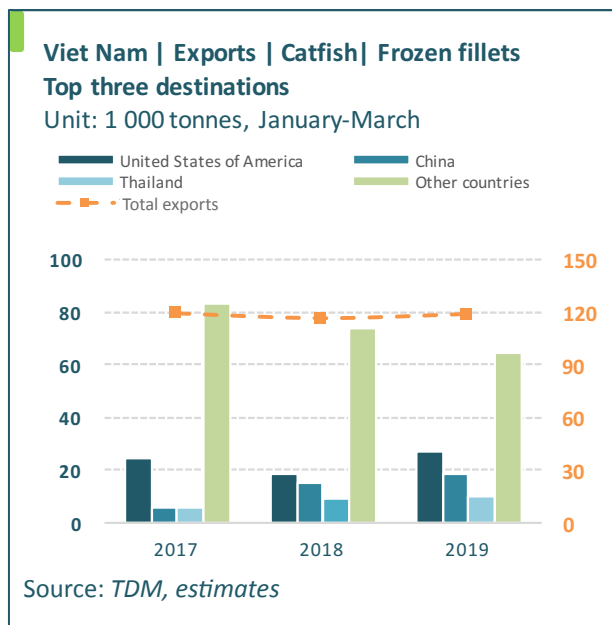
US government has recently purchased large amounts of American catfish to “encourage the continued domestic consumption of these products by diverting them from the normal channels of trade and commerce”. The government placed orders worth USD 2.7 million worth of domestic catfish for child nutrition and other related domestic food assistance programmes. The suppliers will deliver the fish between July and December 2019.

In China, although waning demand has been reported in early 2019, market conditions are more positive from longer term perspective. Import tariffs have been removed on multiple seafood products from Viet Nam, including pangasius and companies have reported increased penetration of fillets as well as whole fish in the Chinese market. Acceptance of high-quality pangasius fillets from Viet Nam by Chinese consumers is also allowing Vietnamese suppliers to latch onto the upward trend in online seafood purchases in China.

Trade

According to Viet Nam’s Association of Fish Exporters and Processors (VASEP), Viet Nam exported pangasius worth USD 472 million in the first quarter of 2019, up by 7.8 percent compared with the same period last year. Viet Nam’s exports to both China and the United States of America dropped for the first time in 3 years. The decline in exports to the United States of America was particularly sharp, with year-on-year drops of 22.8 and 44.4 percent in February and March, respectively.

While the recent recognition that control systems of pangasius production in Viet Nam are equivalent to those in the United States of America represents significant progress for the Vietnamese industry, others are now cropping up. In mid-June 2018, the US authorities released their Trafficking in Persons (TIP) report, which saw Viet Nam downgraded to Tier 2 watchlist. A further downgrade to Tier 3 in the future would have significant impact on trade negotiations, international financial assistance and sourcing decisions by US retailers. In addition, the US Department of Commerce in late April imposed higher anti-dumping taxes than expected on



Vietnamese pangasius imports, following the results of the 14th review period.

Increases in exports to the EU28 combined with good growth in the Association of Southeast Asian Nations (ASEAN) region and some other markets such as Mexico helped Vietnamese exporters continue their revenue gains in the first three months of 2019, despite the decrease in exports to China and the United States of America. In particular, the United Kingdom has continued a growth trajectory that has seen the value of Viet Nam’s UK-destined exports increase by 800 percent over the last decade or so. Elsewhere in the EU28, however, buyers remain somewhat wary of Vietnamese seafood, in part due to the EU28 authorities’ decision to issue a ‘Yellow Card’ to Viet Nam in October 2017 as a warning to take action on Illegal, Unreported and Unregulated (IUU) fishing.

Prices

Over the first six months of 2019 prices fell by 35 percent compared with the record levels achieved in 2018. Export prices of USD 2.35 (FOB Ho Chi Minh) per kg for fillets were being quoted in mid-June, marking a steep decline from the peak of USD 3.40 per kg reached towards the end of 2018. Most traders have attributed this drop to slowdown in orders from China and the United States of America, combined with the additional supply volumes in 2019.

Outlook

Expectations for any sustained recovery in pangasius prices in the second half of 2019 are limited due to the increased supply volumes and the reduction in purchasing activity in the important Chinese and US markets. Profitability at the farm level will consequently be much reduced. Regulatory obstacles to market access in the EU28 and the United States of America remain a significant challenge to Vietnamese exporters. The expanding Vietnamese industry will continue to pursue a dual strategy of market diversification and investment into infrastructure and institutions that facilitate industry-wide compliance. Ongoing development of markets in the ASEAN bloc and other regions should allow exporters to reduce their dependence on traditional markets, while efforts to improve quality, safety, traceability and supply chain efficiency can be expected to continue.



SEABASS & SEABREAM

GLOBEFISH HIGHLIGHTS

Seabass and seabream market still in the doldrums but recovery in sight

There has been little improvement in the market for farmed seabass and seabream so far in 2019, with oversupply and low prices prevailing. However, expectations for significantly lower juvenile stocking this year suggest we may be approaching the end of the bust stage of the now familiar boom-and-bust cycle.

Production

After seven years of consistent and rapid growth in total production levels, the Mediterranean seabass and seabream sector is now finally beginning to decelerate. The plunge in prices that marks an oversupplied market has inflicted widespread damage to aquaculture companies, particularly in Greece, and the incentive to increase volumes further has completely disappeared. Total supply of farmed seabass is expected to drop by around 2–3 percent in 2019, while seabream volumes will likely stay close to 2018 levels. Greece is expected to account for around 21 percent of total seabass supply in 2019 and 25 percent of seabream harvests. The equivalent shares for Turkey are forecast to be around 46 percent and 30 percent, respectively. The next largest European supplier is Spain, which contributes around an 8 percent share of

total production for both species. Egypt is a large producer, accounting for 13 percent of seabass harvests and 14 percent of seabream, but the vast majority of its production is directed to the domestic market. There are reports of sector investment in Middle Eastern countries such as Oman, but it will be some time before these new entrants can supply meaningful volumes.

In Turkey, the largest contributor to harvest increases in recent times, unhealthy inflation and a heavy debt burden is now discouraging further investment and business planning is increasingly more conservative. At the same time, deteriorating market conditions are acting as a catalyst for consolidation across the sector.

Major industry restructuring is still ongoing in Greece, as efforts continue to push through the necessary deals to create a new aquaculture giant incorporating two of the largest seabass and seabream companies, Nireus and Selonda. The European Commission (EC)'s competition regulators will only allow the proposed merger to go ahead if the new entity first sells a number of assets, including farms producing 10 000 tonnes and hatcheries with 50 million smolt capacity. Observers have questioned whether the potential new owner of these relatively limited assets will be able to compete effectively in Greece and in the wider market, but others point to the necessity of large-scale consolidation if the Greek industry is going to be able to compete with Turkish companies that can offer a cheaper product and have access to a more diversified range of export markets.

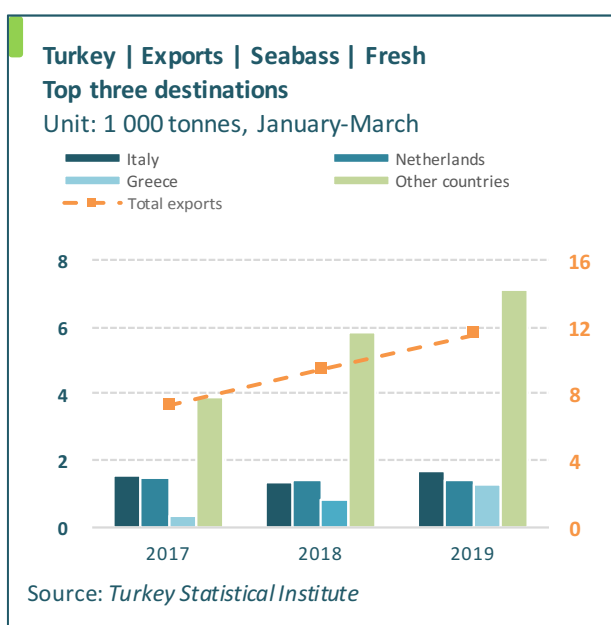
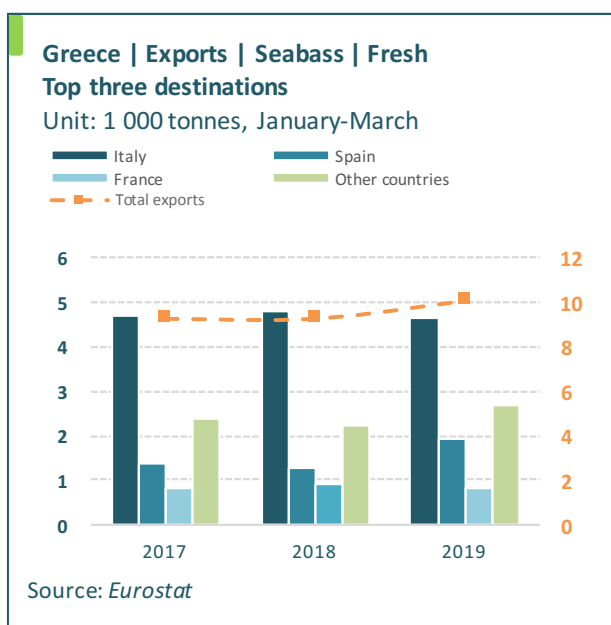
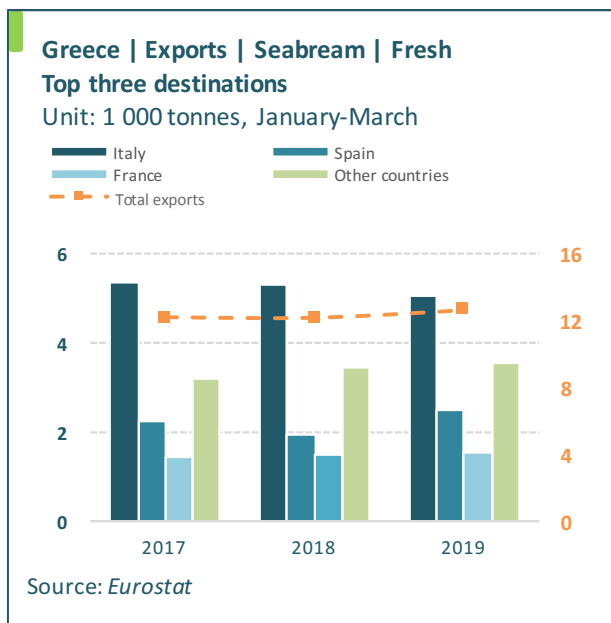
The need to access differentiated, value-added segments amidst difficult market conditions has generated strong demand for certification at farm level, and the Aquaculture Stewardship Council (ASC)'s newly developed standard for seabass, seabream and meagre is proving to be popular. In June of this year, two farms in Greece and two in Turkey became the first in

the world to receive the new certification. A significant number of additional farms across the Mediterranean are currently awaiting audits. The standard sets out best farming practices that are the result of multi-stakeholder engagement and identifies the key performance indicators against which compliance will be measured.

Markets

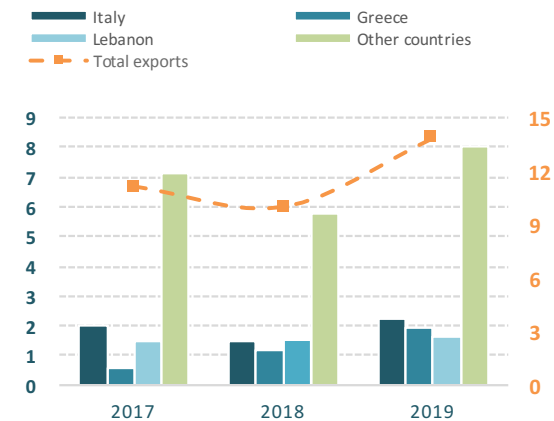
Low prices now seem to be negatively affecting campaigns to expand into new markets, as the risk appetite of stakeholders all along the supply chain is now much reduced. This is evident even in Turkey, which has been the industry leader in terms of developing alternative export destinations such as the United States of America and Lebanon. The Turkish domestic market is suffering from the same economic difficulties that are impacting producers, eroding an additional source of demand. The combined effect of these factors has seen more seabass and seabream directed to the traditional large markets in the EU28, particularly Italy. Already overloaded wholesale markets have been hit with even more fish and prices have suffered as a result.

Lower farm gate prices can be counteracted to an extent by differentiation and value addition, and the seabass and seabream industry is pursuing three main strategies to achieve this. The first is branding with a focus on origin and this the favoured approach of the Greek sector. Greek fish already sells at a premium to Turkish product due to its relatively better image amongst many European consumers, particularly in France, and this is an advantage that Greek stakeholders urgently want to preserve. Accordingly, one of the objectives behind the recent establishment of the Hellenic Aquaculture Producers Organization (HAPO) was the better coordination of branding development and marketing campaigns that emphasise Greek origin. The second strategy is value addition through processing and here it is Turkey that has been most proactive in their efforts, targeting markets in Northern Europe with increasing quantities of fillets. The third strategy is certification under various



Turkey | Exports | Seabream | Fresh Top three destinations

Unit: 1 000 tonnes, January-March



Source: Turkey Statistical Institute

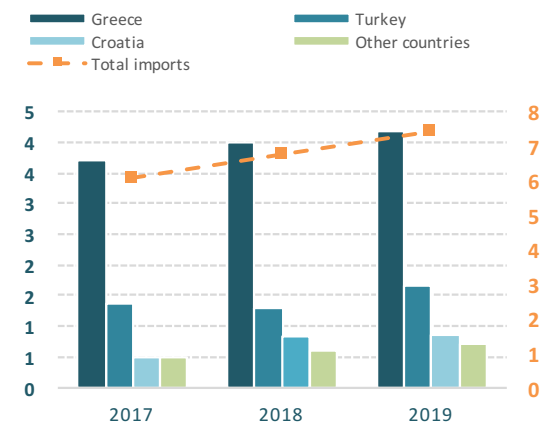
sustainability standards such as ASC or Friend of the Sea. A growing number of Mediterranean producers are actively seeking inclusion in these ecolabelling schemes, which communicate to the consumer the company's adherence to environmental, animal welfare, safety and social governance standards.

Trade

Greece exported seabass and seabream worth almost EUR 100 million in the first three months of 2019, marking a drop of around 5 percent in value compared with the previous year, despite a 6 percent increase in total export volume. Increased Turkish export volumes in the first quarter of 2019 were primarily destined for the EU28, with Italy, Greece and the Netherlands as the top three importers of Turkish fish. Imports of Turkish-origin seabream by Greece have been increasing fast, with the total value of EUR 5.9 million imported in the first quarter representing a 27 percent increase relative to the same period last year. This suggests that resistance to the more attractive price level is weakening fast in the Greek domestic market. Italian imports of Turkish fish also increased significantly in the same period, up by 43 percent volume terms to almost 4 000 tonnes, helping Italy increase imports from all origins by 10 percent. However, lower prices saw a marginal drop in the value of Italy's imports over this same period.

Italy | Imports | Seabass | Fresh Top three origins

Unit: 1 000 tonnes, January-March



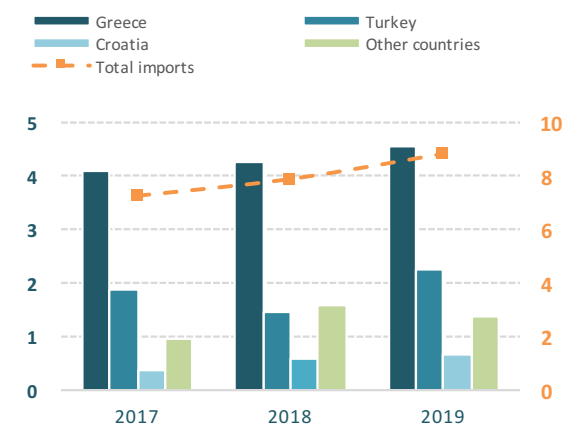
Source: ISTAT - National Institute of Statistics

Prices

Prices of farmed seabass and farmed seabream have diverged somewhat in 2019, with the latter species faring considerably better. The most recent prices for seabass were EUR 3.60 per kg for 300–450g Greek fish on the Italian market in July, while prices for similar-sized seabream were approximately on a par with 2018 prices for the same month at EUR 4.40 per kg. This is a recovery for seabream compared with prices in the first quarter, but it marks a further slide for seabass. Export prices (FOB) for Greek, Turkish and Spanish seabream and seabass averaged at EUR 4.18 and EUR 3.86 per kg respectively in the first quarter of 2019.

Italy | Imports | Seabream | Fresh Top three origins

Unit: 1 000 tonnes, January-March



Source: ISTAT - National Institute of Statistics

Outlook

According to market research firm Kontali, preliminary estimates for juvenile production in 2019 point to a 24 percent drop for seabass juveniles and 30 percent decline for seabream. Particularly sharp declines are observed for seabream juvenile production in Italy and France, 50 percent down compared with 2018. Although these are early estimates, they suggest that the sector as a whole is looking to tighten supply significantly in order to lift prices once again. Indeed, these levels of juvenile production, if accurate, would be the lowest since 2010 and would translate into a substantial decline in harvests over the next 2 years. This pattern has been observed before and typically marks the start of a boom period when the seabass and seabream sector cycles back into its profitable phase on the back of falling volumes and climbing prices. If this is indeed the start of the uptrend, coordinated and proactive efforts by all stakeholders will be needed to lock in and build on market gains while at the same time ensuring controlled adjustment of supply growth to balance the market without another price crash.



SALMON

GLOBEFISH HIGHLIGHTS

Algal bloom in Norway and slowing supply growth in Chile to keep prices high

The start of 2019 was largely business as usual for the farmed salmon sector, with high and stable prices prevailing. Previous forecasts for a softening of prices later in the year have now been revised after a severe algal bloom in Northern Norway in May and shrinking biomasses in Chile.

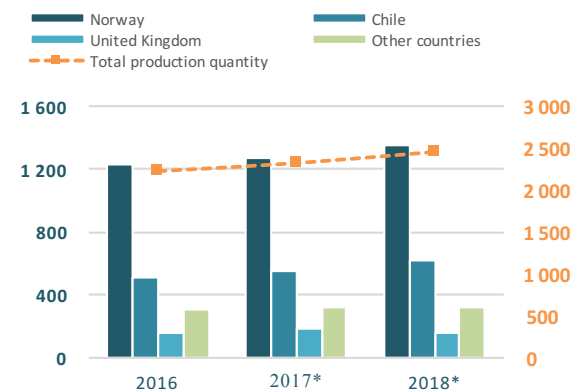
Production

Atlantic salmon

Global harvests of farmed Atlantic salmon are expected to grow by around 4–5 percent in 2019. Norway, the world’s leading producer, started the year strongly while the Scottish sector is recovering volumes following a steep decline last year. However, higher production forecasts for 2019 made earlier in the year now seem too optimistic given the dual impact of the loss of approximately 8 million fish due to a severe algal bloom in Norway and reports of new fish health issues at farms in Chile. The more recent figure is comparable to growth rates observed in 2017 and 2018, continuing a relatively steady growth trend that is bringing some stability to the market.

Top three global producers of farmed Atlantic salmon

Unit: 1 000 tonnes



Source: FAO (until 2016), *estimate

US imports of fresh salmon, in 1 000 tonnes (January-March)

	2016	2017	2018
Fresh fillets			
Chile	23.7	29.8	32.1
Norway	5.3	4.4	4.6
Canada	2.8	2.1	1.4
Other countries	2.8	2.7	3.0
Total	34.7	38.9	41.1
Fresh whole			
Canada	15.4	15.9	16.2
Norway	5.1	5.9	5.4
United Kingdom	3.6	3.0	3.4
Other countries	4.3	5.5	7.0
Total	28.4	30.3	32.0

Source: TDM

Production in Norway was up year-on-year after the first quarter of 2019 and accelerated significantly in May as the arrival of the algal bloom in the north of the country prompted mass harvesting by farmers looking to save marketable fish. Although blooms have occurred before in Norway, this was reportedly the worst the country has seen in decades. The phenomenon, which can cause fish mortality through asphyxiation, occurs only when conditions are optimal but can be triggered

by warming water temperatures. Total lost production, in terms of lost biomass converted to average harvested weight, amounted to some 40 000 tonnes with financial losses estimated at around NOK 2.2 billion (USD 225 million). In response, the Norwegian government will allow affected salmon farmers to apply for a five-year exemption from the capacity limitations connected to their salmon licenses.

In Chile, the farmed salmon industry continues to grow as market conditions have improved. The current business environment is encouraging foreign investment as well as mergers and acquisitions. Helped by a new regulatory regime, 2018 was marked by increases in exports, better profitability and improved biological metrics. According to the National Fisheries and Aquaculture Service of Chile (SERNAPESCA), total fish mortality was reduced by 5.6 percent in 2018 compared to 2017, while mortality due to infectious causes fell by 14.3 percent. Chilean companies are also exploring additional opportunities for exporting salmon eggs to other salmon producing nations, such as the Russian Federation, looking to improve their genetic stock.

Salmon aquaculture in the Russian Federation continues to grow and the largest firm recently reported assets that include 49 salmon and trout farming sites in the Barents Sea, the White Seas and in Karelia, for a total production capacity of around 50 000 tonnes of salmonids per year.

Elsewhere, Scottish Atlantic salmon farmers, represented by the Scottish Salmon Producers Organization (SSPO) have expressed their collective concerns that the United Kingdom government is not adequately prepared for the possibility of a no-deal Brexit. Potential complications that would need to be planned for include additional certifications and tariff barriers, new procedures and transport holdups.

Other farmed salmonids

In the first quarter of 2019, Chilean harvests of rainbow trout (*Oncorhynchus mykiss*) reached 27 300 tonnes, which translates into an increase of 34.7 percent compared with the same period last year, accounting for 7.3 percent of total

Chilean salmonid harvests. Coho salmon output totalled 33 000 tonnes for the review period (+7.5 percent). Coho salmon accounts for 13.7 percent of Chilean salmonid harvests.

In Norway, significantly higher biomasses at trout farms were reported early in 2019, indicating good supply growth potential, but it is not yet clear if the algal bloom has had any significant impact.

In Peru, rainbow trout aquaculture continues to grow. Peruvian production is now around 43 000 tonnes per year and the sector supports an increasing number of livelihoods in the Andean regions. However, analysts agree there are still important challenges to consolidate the farmed trout industry in Peru. One important objective is to increase the domestic production of high-quality trout eggs, which would reduce dependence on imports from other countries.

Wild salmon

In 2018, plentiful wild salmon harvests in the Russian Federation contrasted with Alaskan catches that came in well below forecast. Early indications in 2019 suggest that US wild salmon production will be significantly higher this year, boosted by a particularly good pink salmon harvest. In the Kamchatka Peninsula fishery in the Russian Far East, production will likely drop relative to last year due to lower returns of pink salmon in odd-numbered years, but harvests are expected to be good compared with 2017.

Markets

After some years of relative stability and good profitability supported by high price levels and solid demand, salmon marketers are now looking to build on their success by targeting more challenging markets and segments.

After struggling for many years due to political tensions, Norway is now rapidly expanding its market share in China, as the Chinese authorities continue to grant market access to an increasing number of Norwegian salmon companies as diplomatic relations continue to improve. Trade has been boosted further by a procurement deal agreed between the Norwegian Seafood Council (NSC) and Chinese e-commerce giant Alibaba

Group for the importation of refrigerated salmon directly from Norway.

Norwegian exporters are also setting their sights on the large and growing Brazilian market, which as of now is completely monopolized by Chilean suppliers due to strong trade links and logistical convenience. Demand for fresh salmon is strong in Brazil, driven increasingly by the growing popularity of sushi amongst Brazil's urban consumers in its big cities such as Rio de Janeiro and, in particular, São Paulo. The newly ratified free trade agreement between the European Union (Member Organization) and Mercosur, the South American trade bloc, is expected to benefit Norwegian exporters looking to target Brazil. Although Norway is not part of the EU28, generally it is able to negotiate trade agreements which mirror the terms secured by the EU28.

Chile is also looking to new markets after successfully establishing itself in the Russian Federation and China in recent years. The European market, primarily supplied by Norway and the United Kingdom, has always been challenging for Chilean exporters, but coho salmon producers are now reportedly planning to test demand for the unique quality of the second most farmed salmonid in Chile. Coho salmon are a medium-fatty salmon with a deep red flesh and a relatively mild taste. The Chilean sector is steadily becoming less dependent on Japan, with Europe joining the United States of America, Brazil and China as increasingly important secondary markets.

Salmon demand in the EU28 remains strong despite high prices and weaker performance in certain segments. In France, the largest salmon market, smoked salmon sales have fallen some 30 percent in recent years and negative consumer perception of salmon farming continues to inhibit growth. Food service demand in France is strengthening, opening up market opportunities for portions, fillets and ready-to-cook products. In the United Kingdom, salmon continues to propel sales growth in the chilled seafood segment at retail, while increasing demand for organic salmon is evidenced by strong earnings growth reported at organic salmon farms in Ireland.

In the United States of America, the ever-growing market for fresh fillets from Chile remains the most important segment. In the third major salmon market, Japan, market growth continues to be driven by sales of farmed Chilean coho salmon. Gains made by Norwegian exporters promoting farmed Atlantic salmon in Japan pushed up imports of the species in recent years, but this trend appears to have flattened out.

Trade

Exports

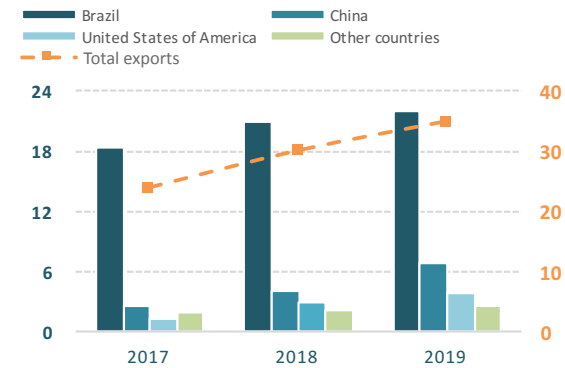
In the first quarter of 2019, higher prices year-on-year pushed Norwegian salmon exports up by 7 percent in value terms compared with the same period in 2018 on the back of a 1 percent increase in volume, according to figures published by the NSC. Total export volume for the quarter reached 247 000 tonnes, worth NOK 16.7 billion (USD 1.71 billion). A strengthening of the Norwegian krone versus the euro after a dip in late 2018, diverted some volume away from core EU28 markets in the first quarter. The 5 percent increase in export sales in the EU28 was significantly lower than the 20 percent increase observed for US-destined exports. Exports to France were particularly affected, with a year-on-year drop of 9 percent in krone terms in the first trimester. Norwegian exports to China have been increasing rapidly as market access restrictions loosen.

Chilean salmon exports increased by some 10 percent in US dollar terms in the first quarter of the year relative to the same period in 2018, for a total of USD 1.4 billion exported. The vast majority of these gains are accounted for by 16 and 21 percent increases in export sales in the US and Japanese markets respectively. Exports to China also rose significantly, up by 28 percent over the review period. Chile is particularly focused on increasing fresh salmon exports to China, flying shipments directly by air.

Norway exported 11 100 tonnes of trout worth NOK 775 million (USD 79.5 million) during the first quarter of 2019. Export volumes increased by 13 percent and export value increased by NOK 137 million (USD 14.1 million) or 22 percent

Chile | Exports | Salmon | Fresh whole Top three destinations

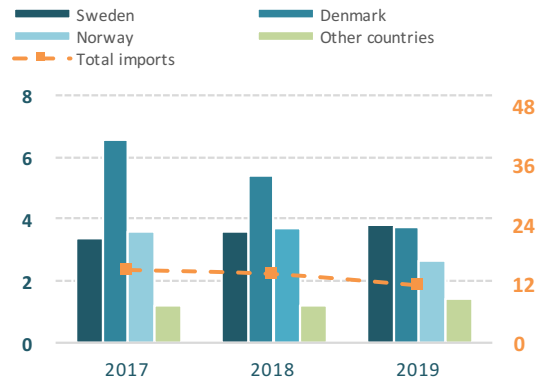
Unit: 1 000 tonnes, January-March



Source: Chile National Customs Office

Germany | Imports | Salmon | Fresh whole Top three origins

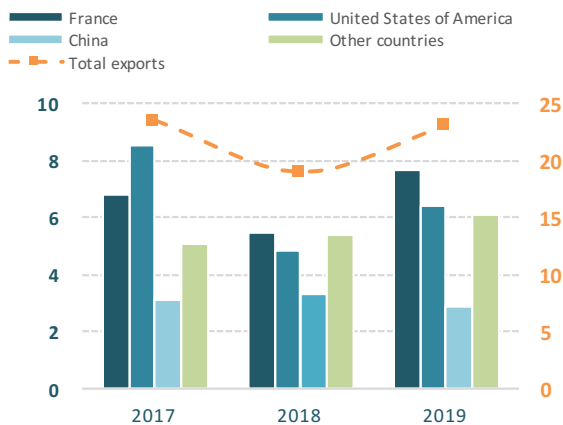
Unit: 1 000 tonnes, January-March



Source: Eurostat

UK | Exports | Salmon | Fresh whole Top three destinations

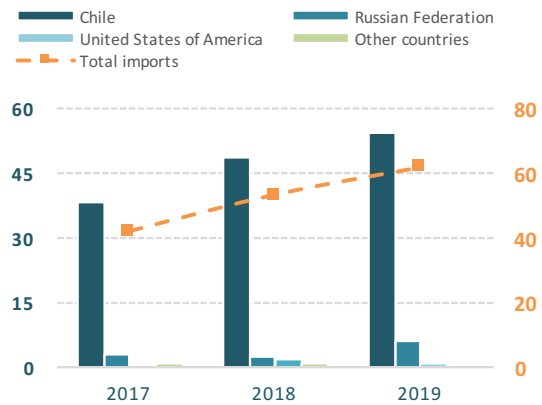
Unit: 1 000 tonnes, January-March



Source: Eurostat

Japan | Imports | Salmon | Frozen whole Top three origins

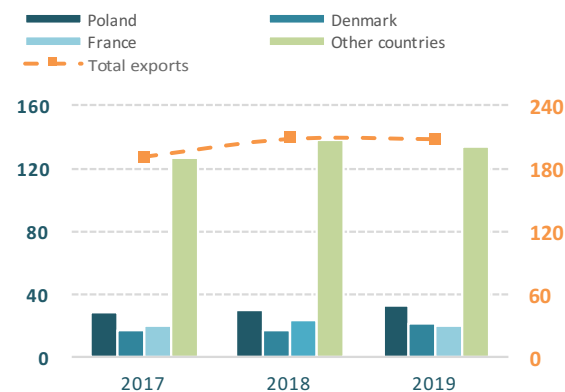
Unit: 1 000 tonnes, January-March



Source: Japanese Ministry of Finance and the Customs

Norway | Exports | Salmon | Fresh whole Top three destinations

Unit: 1 000 tonnes, January-March



Source: Norway Bureau of Statistics

compared with the first quarter of 2018. Chilean trout exports fell by 8 percent to around USD 116 million over the same period.

Imports

The value of US imports of salmon increased by 6 percent in the first three months of 2019, up to just over USD 1.07 billion. Chile has been increasing its share of the US market and supplied 48 percent of that value. Imports into the Japanese market rose by 9.5 percent in JPY terms over the same period, with 70 percent supplied by Chile. Meanwhile, EU28 imports of salmon rose by around 2.5 percent to just over EUR 3 billion.



Prices

Trade prices for salmon in Europe were generally slightly higher in the first quarter of 2019 relative to the same period in 2018. Average euro prices for fresh whole Atlantic salmon imported into the EU28 were around 3 percent up for the period. The spike in harvests caused by the algal bloom in Norway then drove prices down below 2018 levels in the second quarter. Fresh fillet prices in the US market were also slightly higher than 2018 levels in the first quarter, at around USD 10.30 per kg FOB Chile, and the same trend continued into the second quarter.

Outlook

Biomass reductions at Norwegian farms following the algal bloom will result in tighter than expected supply in the second half of the year. There are also reports of worsening biological performance at Chilean farms. Sea lice levels are at five-year highs and average harvested fish weights are dropping. Lower smolt releases compared to last year will also contribute to a reduction in Chilean harvests in the medium term. Salmon forward prices at Fish Pool are now steady at NOK 57.96 (USD 6.96) per kg for the last half of 2019, which would represent a small increase compared with 2018. A slight dip in August and September is still expected, however, due to seasonal increases in harvests at European farms. In the longer-term, competition between exporters is likely to increase as producing countries seek to ensure they are able to secure a meaningful market share in any large market with significant future potential. On the production side, land-based farms continue to attract investment as a possible solution to supply growth limitations, but the economic viability of these projects is still somewhat uncertain and stakeholders have urged caution.

SMALL PELAGICS

GLOBEFISH HIGHLIGHTS

Atlantic mackerel quota advice sharply up

ICES has revised its catch advice for Northeast Atlantic mackerel upwards by over 140 percent. While the quotas have not formally been adjusted yet, they may be soon. Iceland has already increased its quota by 30 percent. This could have a negative effect on prices.

Mackerel

In May, ICES revised its 2019 catch advice for northeast Atlantic mackerel. The new catch advice was set at 770 358 tonnes, more than double the previous advice of 318 403 tonnes set in October 2018. The main reason for this change was a modification in the assessment method used.

The fishery was certified by the Marine Stewardship Council (MSC), but got its certification suspended in March this year. The new assessment may cause the certification to be re-instated, but observers are uncertain, since the suspension was based on both stock status and management of the resource and the management has not been changed. However, the suspension of the MSC certification has had little market impact so far.

Even with such a dramatic increase in the stock assessment, it is far from certain that the quotas will be increased. These were set in an agreement between the coastal states last year. Canada's DFO has cut its quota for Atlantic

mackerel by 20 percent to 8 000 tonnes for 2019. As much of this catch is used for bait for the lobster fishing sector, it is mainly the lobster sector that will be affected by this cut.

When the Russian Federation imposed a ban on imports of western seafood back in the summer of 2014, European exporters of pelagic fish found one of their largest markets disappearing overnight. The Russian Federation was at that time Norway's largest market for herring. Only the Faroe Islands were able to export to the Russian Federation, and substantially increased shipments there.

Since 2014, the Russian Federation has built up its own fleet, both in the pelagic sector and in groundfish sector, and presently the country is largely self-sufficient. What this means for the former big suppliers to the Russian Federation, is that even if this market were to re-open tomorrow, Norwegians and Danes would probably not be able to recapture their market shares there.

While the Russian Federation previously imported a lot of pelagic fish from the Atlantic, much of their own production is now focusing on the Pacific. Herring, mackerel and capelin from the Pacific have taken over market share from the Atlantic species, and consumers seem happy with this. Previously, consumers preferred seafood from Norway and Iceland, but they now prefer domestic seafood.

The new focus on Pacific pelagic seafood may also provide an opportunity to open new markets for Russian Federation seafood in Asia. Atlantic mackerel and herring are presently expensive, while Pacific fish costs less, which gives it an advantage in the market.

Norwegian mackerel exports dropped by 45 percent to 27 400 tonnes during the first quarter of 2019. Exports to the Republic of Korea dropped from 7 200 tonnes to 3 300 tonnes, and to Japan from 4 700 tonnes to 2 600 tonnes.

Mackerel has become a trendy food in Japan and in the Republic of Korea, and consumers have had a preference for Norwegian mackerel.

The Norwegian Seafood Council (NSC) is continuing its drive to promote Norwegian mackerel in these countries. In 2018, Japan and the Republic of Korea imported 90 000 tonnes of mackerel from Norway worth NOK 1.5 billion (USD 176.9 million).

China is also an important market for Norwegian mackerel. In 2018, China imported 41 000 tonnes of mackerel from Norway, but much of this went to processing and re-exports. During the first quarter of 2019, Norwegian whole frozen mackerel to China amounted to 6 420 tonnes, up from 6 072 tonnes in the same period in 2018.

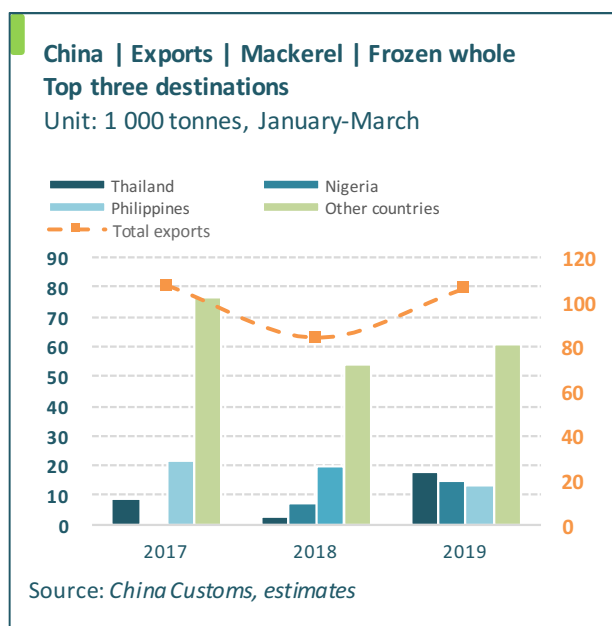
Chinese exports of whole frozen mackerel increased by 26.7 percent during the review period. The main destinations were Thailand (up over 500 percent to 18 000 tonnes), Nigeria (up 106 percent to 14 600 tonnes) and the Philippines (down one third to 13 100 tonnes).

Frozen mackerel prices have been rising slowly since the beginning of 2018. Large operators in the mackerel market expect prices, which are already at an all-time high, to remain high for the rest of the year. Denmark, Ireland and the United Kingdom have already caught most of their quota, while Norway still has most of its quota left to catch.

Norwegian exports of small pelagics (frozen whole), in 1 000 tonnes (January-March)

	2017	2018	2019
Mackerel			
China	13.7	6.1	6.4
Republic of Korea	5.1	7.2	3.3
Japan	3.7	4.7	2.6
Other countries	43.6	32.1	15.1
Total	66.1	50.0	27.4
Herring			
Egypt	5.4	12.1	25.9
Lithuania	7.3	6.5	10.0
Nigeria	2.2	2.5	8.7
Other countries	27.0	20.9	20.6
Total	28.4	42.1	65.1

Source: TDM



Herring

ICES recommended a 120 000 tonne increase in the 2020 quota for North Sea herring. This means that the quota advice is 431 062 tonnes, up from the earlier ICES advice of 311 572 tonnes for 2019. The actual TAC for 2019 was set at 385 008 tonnes.

However, scientists warn that one might expect a reduction in stock size in the coming years. This is largely because surveys have revealed that the spawning stock is at its lowest level since 1996. The European Union (Member Organization) and Norway will set the actual fishing quotas later.

The Canadian fleet landed more than 78 percent of the catch quota for Pacific herring with eggs by the beginning of April, when 14 100 tonnes had already been landed. Environmental groups are calling for a close of this fishery, claiming that it is threatening both Chinook salmon and killer whales. The DFO have stated that the herring stocks are healthy, but the environmental groups are suggesting to leave the herring in the sea for the salmon stocks to recover and “the killer whales to have enough food”.

Norwegian herring catches were slow in the beginning of June, and the size and quality of the herring was disappointing. In the Norwegian zone, the fish was small and spread out, so Norwegian vessels were searching for better results in the EU28 zone.

Norwegian herring exports increased by almost 55 percent to 65 100 tonnes during the first quarter compared to the same period last year. Egypt was the main market and doubled its imports of Norwegian herring, from 12 100 tonnes in 2018 to 25 900 tonnes in 2019. Nigeria also imported much more Norwegian herring in the first quarter of 2019, up from 2 500 tonnes in 2018 to 8 700 tonnes in 2019.

Russian Federation exports of whole frozen herring dropped from 64 800 tonnes during the first three months of 2018 to 51 600 tonnes during the same period in 2019. Most of this drop was due to a massive 42 percent decline in exports to China. Exports to the Republic of Korea and Nigeria increased.

Whole frozen herring prices, which have been on a declining trend for the past two years, picked up a little in the beginning of this year, while prices for frozen herring fillets are declining.

Anchovy/Sardines

The Pacific sardine resource has been seriously overfished during the past 7–10 years, according to the US National Oceanic and Atmospheric Administration (NOAA). A recent stock assessment showed that the biomass was estimated at only 27 547 tonnes, far below the 150 000 tonnes that is considered necessary to reopen the sardine fishery on the Pacific coast. Not surprisingly, not everyone agrees with this assessment. Fishers claim that the assessment does not reflect the actual stock. The sardine biomass peaked at 1.8 million tonnes in 2006. In addition to being overfished, it has also been the prey of a multitude of marine wildlife along the coast.

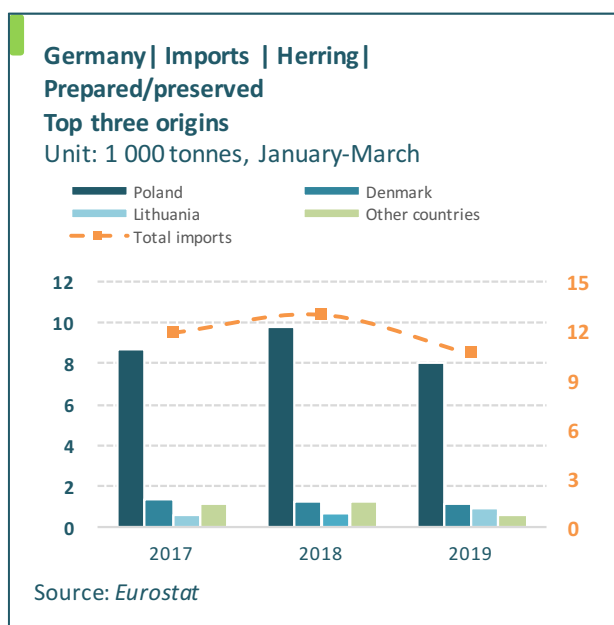
In Peru, the first fishing season of the anchoveta in the north-central area started on 4 May. The quota was set at 2.1 million tonnes according to the recommendation by the Institute of the Sea of Peru (IMARPE). The season will last until the quota has been caught, or when IMARPE decides to end it for environmental or biological reasons. In June, the anchovy fishing was banned for a period of 10 days, and the ban was extended for another 10 days in early July. This decision was based on an IMARPE report on the

maximum catch limit of the fishery in the north-central region.

Capelin

Iceland registered a strong decline in its capelin exports during the first four months of 2019. Total exports were down by 50 percent, to 5 200 tonnes worth USD 10.2 million. The sharpest drop was registered for the largest markets Japan (-84 percent by value) and China (-67 percent by value).

There is no capelin fishing in the Barents Sea this year, and this has hurt several fishing companies, especially in the Russian Federation. Capelin is fished for fishmeal production and for human



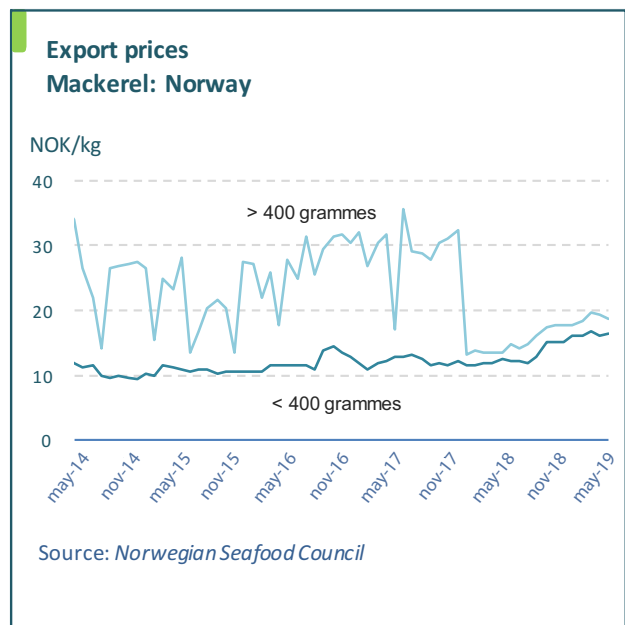
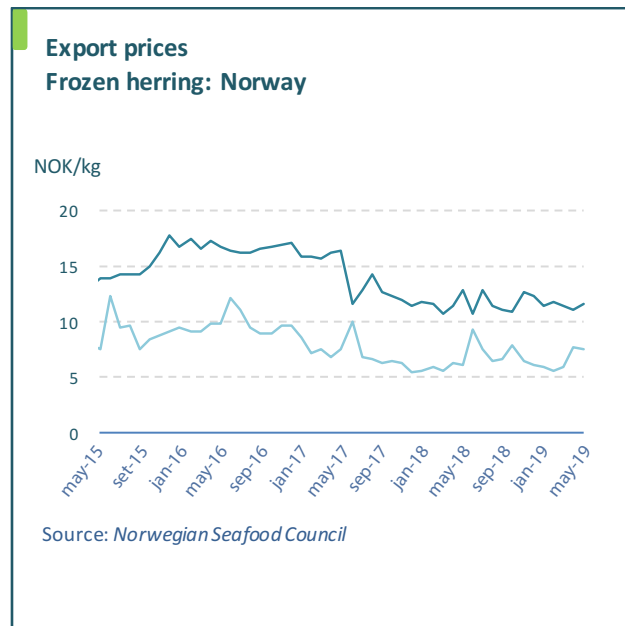
consumption, and Russians are fond of capelin. The outlook for next year is also bleak, to say the least. Fishing companies expect the fishery to be closed in 2020 also, but the final decision will only be taken in October or November, when the Joint Norwegian-Russian Fishery Commission meets.

Outlook

The supply situation for Atlantic mackerel could change dramatically if authorities take the advice from ICES and increase this year's quota substantially. However, this is still uncertain. An increase could affect prices, which are high at the moment. Supplies of mackerel will be limited for the rest of the year, and prices are expected to stay high.

Herring supplies could also be increased substantially, but not until 2020, and in the longer term, herring supplies are expected to decline. With herring prices on a slightly downward trend, they could slide further down over the next twelve months. The Russian Federation increased its domestic production of small pelagics, and since it is not likely to re-open its market to the West, and because domestic production has replaced imports, new markets have to be developed for Atlantic herring.

Pacific supplies of small pelagics are uncertain. Peru introduced a ban on anchovy fishing just one month after the opening of the season. In North America, the Pacific sardine stocks are in bad shape, allowing no exploitation at all.



FISHMEAL & FISH OIL

GLOBEFISH HIGHLIGHTS

Lower anchovy fishing quota in Peru

The first anchovy fishing season in Peru observed a lower quota compared to the same period of last year, but landings so far are quite positive. The market and prices are relatively stable.

Production

In the first six months of 2019, overall raw material landings around the world dropped significantly. Total fishmeal and fish oil production during this period followed the trend of raw material landings, with fishmeal production decreasing by 45 percent and fish oil production dropping 49 percent compared to 2018 in Peru. For the first two quarters, total fishmeal and fish oil production in Peru reached 520 751 tonnes and 88 212 tonnes, respectively. Other countries reported the same trends.

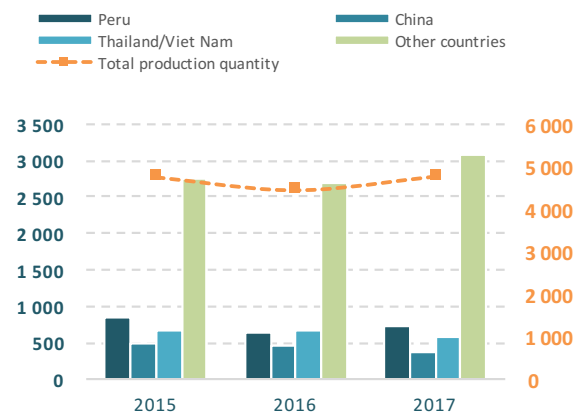
The first anchovy fishing season of 2019 in the centre-north region of Peru began on 4 May with a total allowable catch set at 2.1 million tonnes, some 36 percent less than for 2018. This was partly due to the re-emergence of El Niño conditions that affected production. As of 30 June, around 2.24 million tonnes of anchovy have been reportedly landed, a 57 percent drop compared to landings at the same time in 2018. Approximately 1.86 million tonnes of the landing came from this fishing season, since the previous fishing season ended in early 2019 and part of these landings were from the previous

season. According to local news sources, the average rate in May was about 43 000 tonnes per day, but with unusually strong waves in June, this rate fell to 25 000 tonnes per day.

Peru's Ministry of Production announced a ten-day ban on anchovy harvesting on 27 June. This suspension aims to protect the sustainability of the stock resources and juvenile anchovy specimens, given that there is only 12 percent

Top global producers of fishmeal

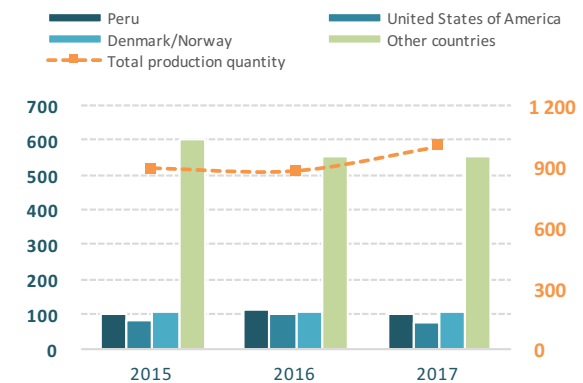
Unit: 1 000 tonnes



Source: IFFO, Oil world

Top global producers of fish oil

Unit: 1 000 tonnes



Source: IFFO, Oil world

of the first season quota left to harvest and that there is a high incidence of juveniles on the coast.

Export

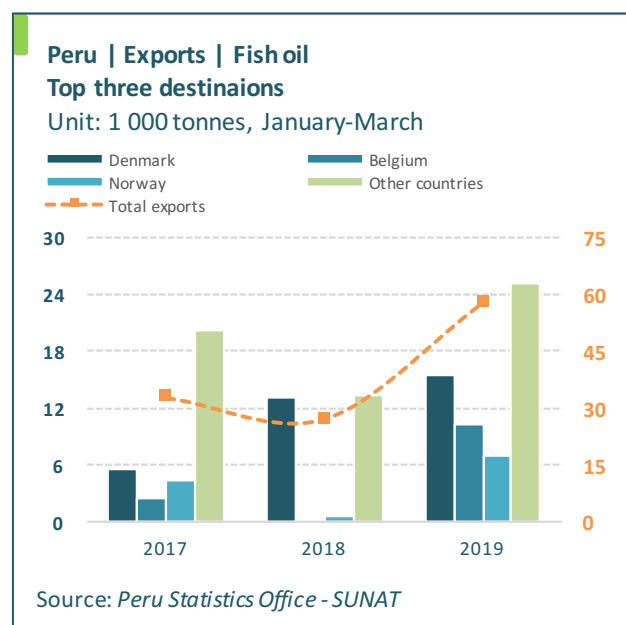
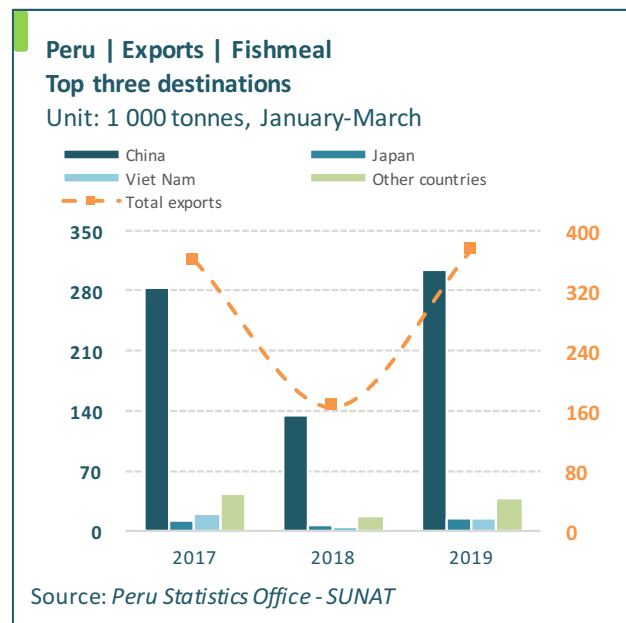
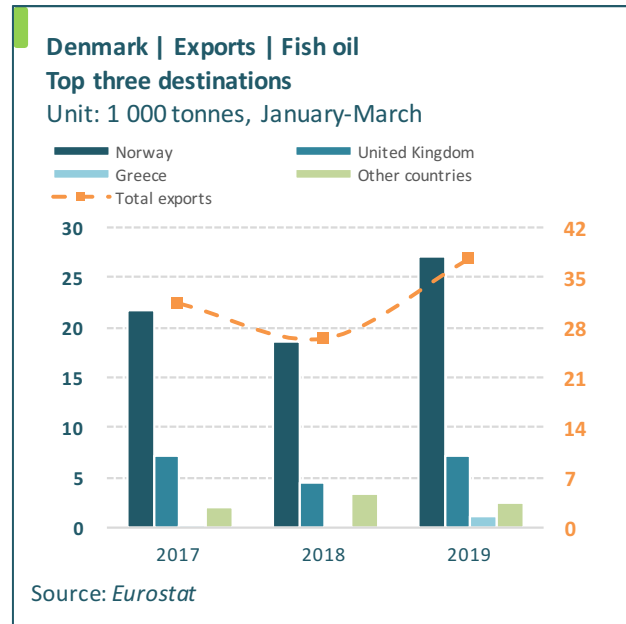
There was a dramatic increase in Peru's exports of fishmeal from 164 500 tonnes in the first quarter of 2018 to 374 400 tonnes in the same period of this year. China was the leading destination with 305 300 tonnes, about 169 500 tonnes more than in the same period last year.

Peru exported a total of 57 800 tonnes of fish oil around the world in the first quarter of 2019, with Denmark being its largest consumer importing 15 500 tonnes of Peru's fish oil. During this period, Peru's total fish oil export to the world was 30 700 tonnes higher than in 2018.

Denmark is also a key player in the fish oil export trade, exporting 38 000 tonnes during the review period. The total export volume grew by 12 000 tonnes regarding to same period in 2018. Norway is the largest consumer for Danish exports, taking 27 000 tonnes.

Markets

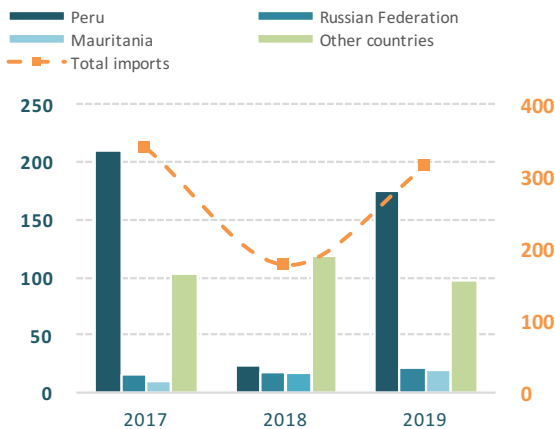
Despite the lower catch quota in Peru, balance is maintained by the high fishmeal stocks in China. Peruvian fishmeal production during the review period was good despite the reduced catch level, so the product will continue to arrive at Chinese ports. In the first three months of 2019, China imports increased to 312 900 tonnes (+78 percent) of fishmeal worth USD 444 million (+74 percent), compared with last year. More than 55 percent of the Chinese total imports were supplied by Peru. The first quarter is typically the seasonal low in terms of Chinese aquatic feed production. Fishmeal sales from port held inventories are slower during this period of the year. About 70 percent of fishmeal consumed in China are used to manufacture aquatic feed, but aquaculture farmers normally start to stock their ponds in April.



China | Imports | Fishmeal

Top three origins

Unit: 1 000 tonnes, January-March



Source: China Customs, estimates

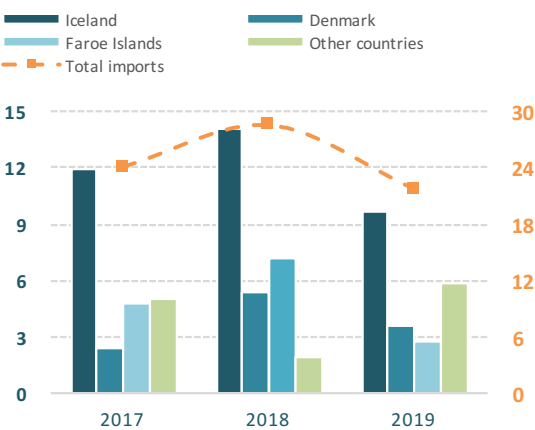
Price

Chinese fishmeal prices remained stable in the first quarter of 2019, regardless of the high stock level of Chinese inventories. Prices for Peruvian super prime fishmeal peaked in late March at CNY 10 950 per tonne (USD 1 625 per tonne) in Shanghai but later dropped back to CNY 10 800 per tonne (USD 1 570 per tonne). Monthly average prices for Peruvian fishmeal experienced a drop from November 2018 but started to recover in February 2019. In April, monthly average prices for Peruvian fishmeal returned to a normal performance and remained stable through May. Monthly average Peruvian fish oil prices decreased from

Norway | Imports | Fishmeal

Top three origins

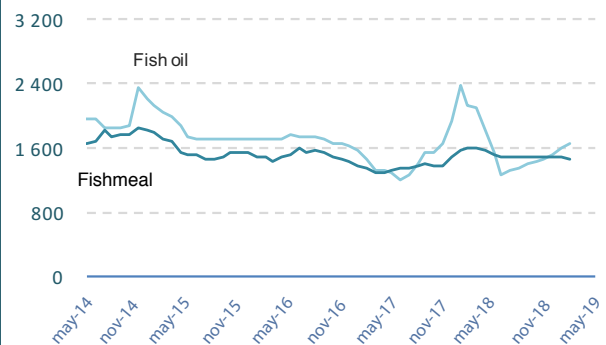
Unit: 1 000 tonnes, January-March



Source: Norway Bureau of Statistics

Prices Fish oil and fishmeal: Europe

USD/tonne

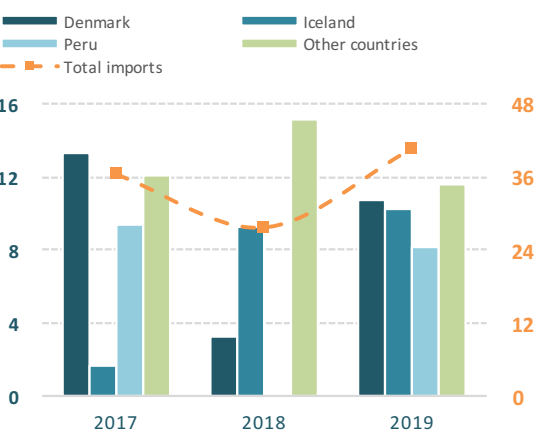


Source: Oil World

Norway | Imports | Fish oil

Top three origins

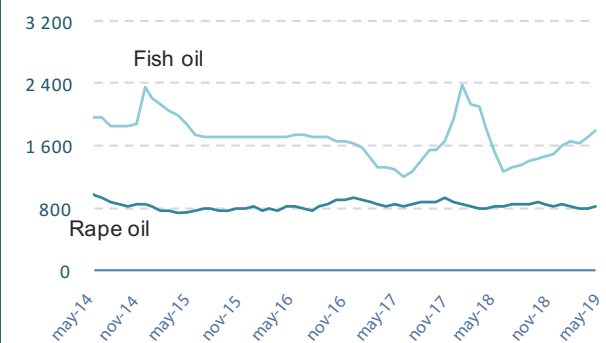
Unit: 1 000 tonnes, January-March



Source: Norway Bureau of Statistic

Prices Fish oil and rape oil: Europe

USD/tonne



Source: Oil World



February to April of 2019, but overall, the prices are steadily growing. According to data published on 3 June from Undercurrent News, fishmeal prices from Peru were between USD 1 620–1 650 per tonne and fish oil prices were between USD 1 700-1 900 per tonne.

Outlook

Landings of Peruvian anchovy have been quite positive so far this year, with 78 percent of the quota already taken. The current ban on harvesting might result in lower landings later in the season, as fishers may be reluctant to harvest due to poor weather conditions after the ban is lifted in early July.

In addition, weather conditions in February and March have been showing that the El Niño phenomenon may return, and it is expected to affect this year's harvest. Anchovy biomass was just 7 million tonnes, according to IMARPE, about 35 percent less than at the same time last year. To fulfil the current fishing season quota, Peru will need to land an average 35 000 tonnes per day, but with the ban in place, this may prove to be difficult. Prices for fishmeal and fish oil are expected to nudge up considering the reduction in the quota and the ban, in particular given the quota is about to be fulfilled. This will lead to no production of fishmeal and fish oil until the end of this year when the second fishing season commences.

LOBSTER

GLOBEFISH HIGHLIGHTS

US–China trade war is on and off, but how will it end?

During the G20 meeting in Osaka in June, the United States of America and China announced that they would go back to the negotiating table to put an end to the trade war. Meanwhile, lobster supplies are getting tighter, especially on the US East Coast because of short supplies of herring for bait. Consequently, prices may edge upwards.

Supplies

Lobster fishers on the US East Coast are worried about further cuts in 2020 in their herring quota, as herring is the main baitfish for lobster. The quota has already been dramatically reduced and a further reduction would bring it to just one fifth of the quota in 2014. Such a cut would mean lower lobster landings, and that could push up prices.

In Canada, the spring season started a few days later at the beginning of May, due to bad weather. Fishers got a few days of extension in the beginning of July, but now the spring season is over.

In Western Australia, lobster fishers and the authorities agreed in February that the industry would supply an extra 315 tonnes of rock lobster for domestic consumption and for a lobster festival. More lobster for the local market would be desirable for the local population

and it would also be a big boost for the tourist industry, according to Fisheries Minister Dave Kelly.

However, the extra quota was presented with conditions that were not acceptable for lobster fishers and now the agreement has been called off. Almost all of Western Australia's lobster catch is exported.

World imports/exports of lobster, in 1 000 tonnes (January–March)

	2017	2018	2019
Imports			
China	6.7	10.7	12.6
United States of America	10.7	11.1	8.7
Canada	1.8	2.2	1.7
Other countries	19.4	10.1	9.8
Total	38.6	34.2	32.8
Exports			
Canada	14.4	15.5	16.3
United States of America	5.4	7.0	5.0
Australia	3.1	3.9	3.6
Other countries	9.6	8.5	7.5
Total	32.5	34.9	32.4

Source: TDM, estimates

US imports/exports of lobster, in 1 000 tonnes (January–March)

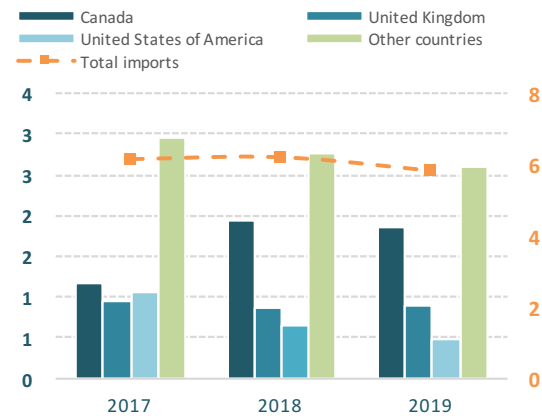
	2016	2017	2018
(1 000 tonnes)			
Imports			
Canada	8.8	9.3	7.1
Bahamas	0.7	0.4	0.4
Honduras	0.4	0.5	0.4
Other countries	0.8	0.9	0.9
Total	10.7	11.1	8.7
Exports			
China	1.5	3.5	1.3
Canada	0.5	0.4	0.8
Honk Kong SAR	0.5	0.9	0.6
Other countries	3.0	2.3	2.3
Total	5.4	7.0	5.0

Source: US Census Bureau

EU28 | Imports | Lobster

Top three origins

Unit: 1 000 tonnes, January-March

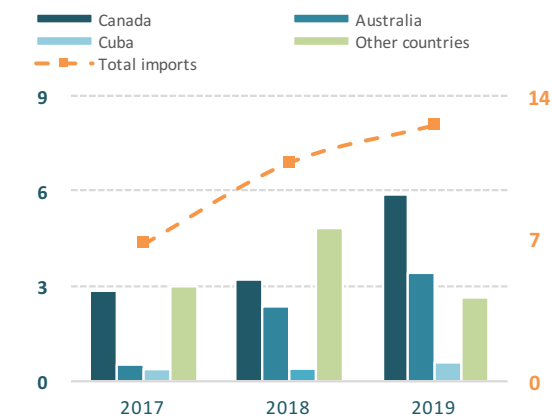


Source: Eurostat

China | Imports | Lobster

Top three origins

Unit: 1 000 tonnes, January-March

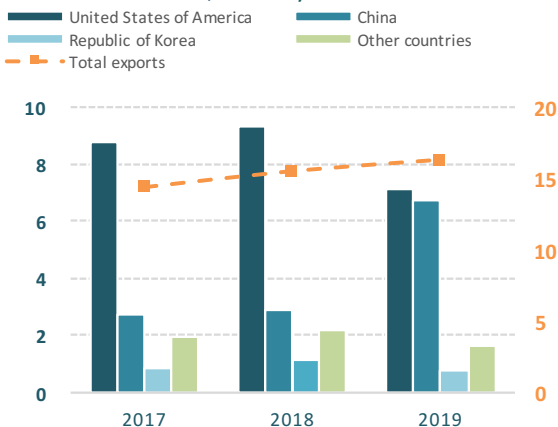


Source: China Customs, estimates

Canada | Exports | Lobster

Top three destinations

Unit: 1 000 tonnes, January-March



Source: Canada Statistics

International trade

Global imports of lobsters (all types and product forms) declined by 4 percent to 32 800 tonnes during the first quarter of 2019 compared to the same period in 2018. The biggest drop was registered by the United States of America, which saw lobster imports drop by 21.5 percent, from 11 100 tonnes in the first quarter of 2018 to 8 700 tonnes in the same period in 2019. China increased its imports by 17.1 percent to 12 600 tonnes. Canada increased lobster exports by 5.1 percent during the review period, from 15 500 tonnes in 2018 to 16 300 tonnes in 2019, whereas US lobster exports fell by 28.7 percent to just 5 000 tonnes.

Maine lobster exporters have been focusing heavily on China as their prime market. As much as 84 percent of Maine lobsters are exported to China. After the retaliatory tariffs were invoked, Maine's lobster exports to China plunged by 84 percent. Nevertheless, alternative markets have been found for most of the drop. A larger share of the production went to the domestic market.

US lobster exporters are having problems in the EU28 as well. The European Commission threatened to put a retaliatory tariff on many US products, including seafood. Sales of US lobsters to the EU28 dropped by almost 50 percent between 2016 and 2018, from 9 300 tonnes in 2016 to just 4 800 tonnes in 2018. The main reason for this change is the Comprehensive Economic Trade Agreement between Canada and the EU28, which made EU28 importers shift to Canadian suppliers because of the abolition of the 8 percent EU28 tariff on live Canadian lobsters and the promise of lifting the 16–20 percent tariff on value-added lobster products over the next five years.

Prices

The marketing body for Canada's Prince Edward Island highlights that while landings are better this year than in 2018, lobsters are earning less because of lower prices. In general, prices for small lobsters are down, while for larger lobsters they hold their own. In the rest of Canada, raw material prices were quite stable throughout the season, but a bit higher compared to last year.

This resulted in higher prices for whole lobster than in 2018, though there was a new drop in import duties because of the CETA agreement, which made up for a part of the increase.

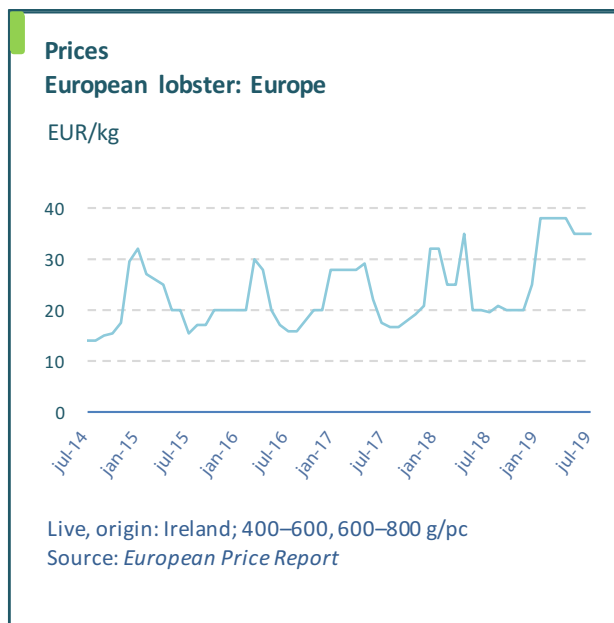
On the US market, prices for lobster tails have been on an upward trend since late 2017. In the EU28 the trend is also pointing upwards.

Outlook

The hopes of new trade negotiations between China and the United States of America were rekindled at the G20 meeting in late June. The industry seems to have a more optimistic view of the immediate future and that the situation could return to normal. Demand for lobster in China is great, but the outlook for supplies is not all that good. Consequently, one might expect prices to go up.

The raw lobster tail market in the United States of America is still very demanding. Prices remain very high, but they might drop soon, depending on the supply of rock lobster. The season in Central America just started, and further price developments in the United States of America will depend on the arrivals from this side.

The trade war has brought a change in the relative positions of Canadian and US exporters, with the US exporters finding it harder to sell their lobster in China and in Europe. It may take some time to rebuild confidence in the marketplace, at least under the present US administration. The thawing trade relations between the United States of America and China may suddenly turn cold again. Predictability and consistency of policy is needed for trade to flourish and at the moment there is very little predictability in the trade relations between the United States of America and China.



BIVALVES

GLOBEFISH HIGHLIGHTS

Bivalves report steady demand and high prices

Summer in Europe is the main sales period for mussels, scallops and clams, while oysters are less in demand due to health considerations. Prices are high for all species, while trade in the first quarter of 2019 was stable.

Mussels

Mussel trade contracted slightly in the first quarter of 2019, compared with the same period of last year. Imports were 67 000 tonnes, a 4 percent decline from the corresponding period in 2018. Main importing countries were France, Italy and the United States of America. Exports reflected the same decline, even though Chile, the world's main exporter of mussels, reported a 20 percent increase in sales, while Spain and the Netherlands reported lower exports.

Chilean exports of mussels are mainly in the category 1605, i.e. prepared and preserved mussels. In 2018, exports of this product reached 80 000 tonnes, with Spain and the Russian Federation importing 12 500 tonnes each. While for Spain this represented a 15 percent decline, for the Russian Federation it meant an increase of 40 percent from 2017. Mussel demand in the Russian Federation, the world's largest country by landmass encompassing 11 time zones, includes whole and half-shell mussels, as well as mussel meat. Within the Russian Federation, the larger cities of Moscow and St.

Petersburg are driving retail demand and resort towns in the south boost foodservice demand. Consumption is very seasonal and strong in the summer. Russian Federation consumers started to get a taste for mussels from Chile in 2015, a year that the rouble's devaluation relative to other currencies hurt Russians' ability to import other products. Presently, Chilean mussels have become a well-accepted product in the Russian Federation market, and it is likely that this year the Russian Federation will overtake Spain as the major outlet for Chilean mussels.

In the first quarter of 2019, Chilean exports reached 20 700 tonnes, an increase of more than 20 percent over the same period in 2018. The United States of America were the main importer during this period, revealing that the efforts of the Chilean export promotion of mussels in this country are paying off. The Russian Federation is only number five importer in the first quarter of 2019, but shipments should pick up in the summer months.

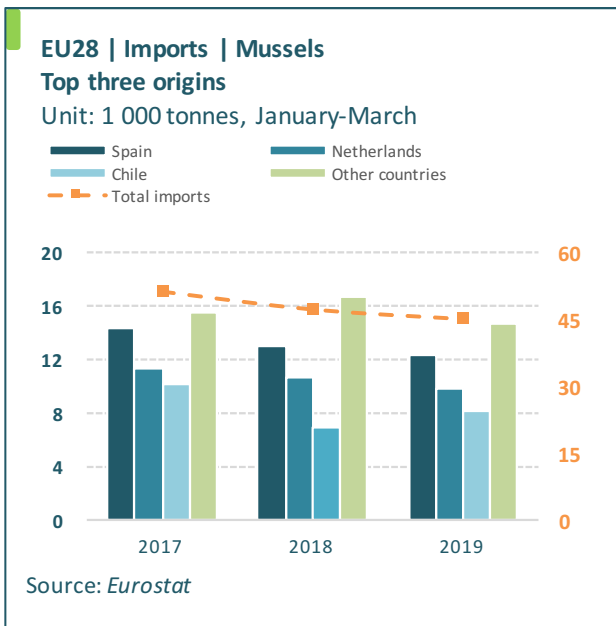
World imports/exports of mussels, in 1 000 tonnes
(January-March)

	2017	2018	2019
Imports			
France	15.4	14.7	15.2
Italy	11.9	9.8	9.0
United States of America	7.9	7.1	8.4
Other countries	37.7	38.2	34.5
Total	73.0	69.9	67.0
Exports			
Chile	20.6	17.3	20.8
Spain	15.8	17.1	16.3
Netherlands	13.3	12.8	12.0
Other countries	32.6	35.3	31.8
Total	82.4	82.5	80.9

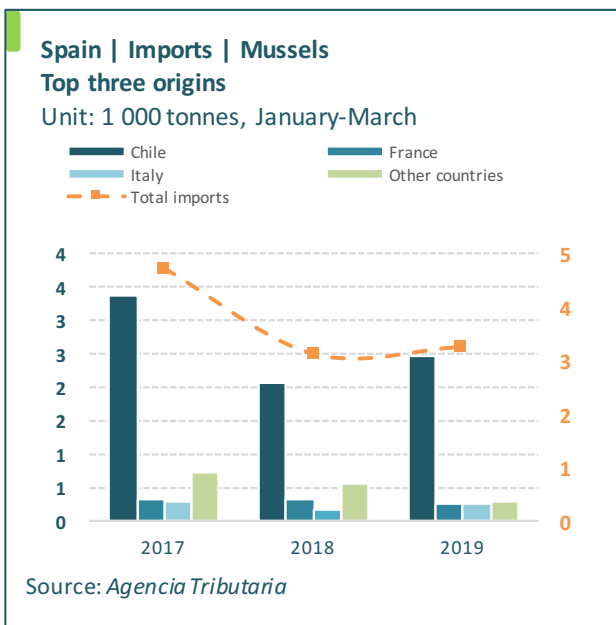
Source: TDM, estimates

Scallops

China is the main player in scallop trade, but the country reported lower imports and exports during the first quarter compared to the same

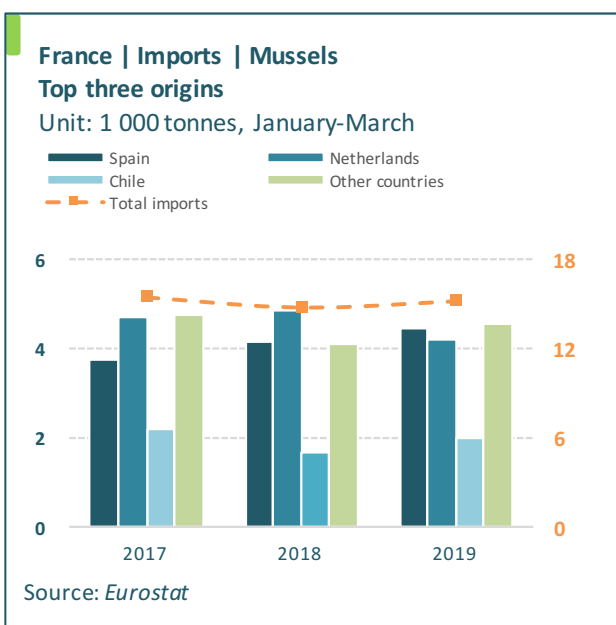


period of last year. Most of the scallop imports are reprocessed in the country and then exported with some type of value addition. The second major importer is the United States of America, which is also a main scallop-producing country. Domestic landings during the 2018–2019 season increased and further increase is likely to materialize in the 2019–2020 season. The catches between 1 April 2018 and 31 March 2019 amounted to 25 000 tonnes and for the coming season about 28 000 tonnes are expected. The 2018–2019 increase in availability led to relatively low prices in 2018. Surprisingly, prices increased in early 2019 and stayed high also in June, when normally prices tend to move downward. This unusual price development makes the outlook difficult.



Scallop exports from Peru fluctuate as much as production does. The export volume fluctuated between almost 15 000 tonnes in 2013 and 3 100 tonnes in 2017 to 5 800 tonnes in 2018. Although there are exceptions, such as in 2013 when the United States of America was the largest market, usually France is the most important market for Peruvian scallops.

The French market is also relatively stable. Although exports to France fluctuate according to availability of the product, this fluctuation is less severe than it is in other markets such as the United States of America. In the first three months of 2019, Peruvian exports of frozen scallops reached 2 000 tonnes, about 1 300 tonnes more than in the same period of 2018, reflecting the return of Peruvian scallops to normal levels.



Oysters

France is the main importer and exporter of oysters. During the review period, oyster trade was quite stable. In the summer, market for oysters in France is typically slower due to high temperature. Overall, oyster is the least important commodity in the bivalve international trade.

World imports/exports of scallops, in 1 000 tonnes (January-March)

	2016	2017	2018
Imports			
China	11.3	8.2	7.8
United States of America	6.4	5.2	3.6
France	3.1	2.4	3.0
Other countries	14.3	14.8	15.8
Total	35.1	30.6	30.3
Exports			
China	8.3	7.9	7.3
Russian Federation	1.7	1.0	2.2
Peru	1.3	0.4	2.0
Other countries	13.1	11.7	10.6
Total	24.4	21.0	22.1

Source: TDM, estimates

World imports/exports of clams-cockles and ark shells, in 1 000 tonnes (January-March)

	2017	2018	2019
Imports			
Japan	24.7	22.4	21.6
Republic of Korea	16.8	14.4	14.4
Spain	7.9	7.9	8.1
Other countries	21.3	25.4	26.8
Total	70.7	70.1	70.8
Exports			
China	47.3	41.7	42.2
Canada	3.5	3.1	2.8
Indonesia	0.4	0.8	2.8
Other countries	15.9	17.8	17.0
Total	67.2	63.3	64.7

Source: TDM, estimates

World imports/exports of oysters, in 1 000 tonnes (January-March)

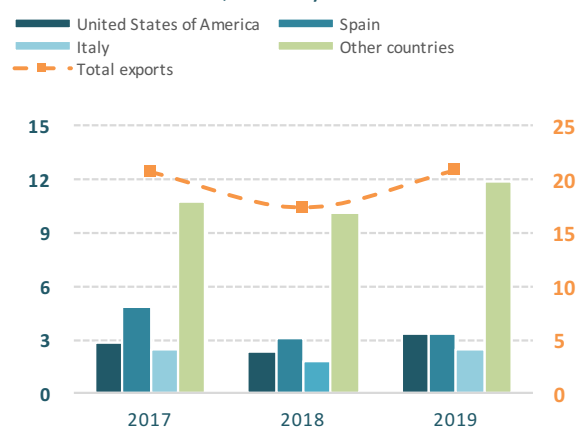
	2017	2018	2019
Imports			
United States of America	2.5	3.0	2.1
France	2.1	1.9	1.9
Japan	0.8	1.0	1.5
Other countries	10.5	8.2	8.8
Total	15.9	14.1	14.2
Exports			
France	2.4	2.6	2.9
Republic of Korea	1.6	2.2	2.8
Ireland	1.8	1.7	1.5
Other countries	11.3	10.7	8.1
Total	17.1	17.3	15.3

Source: TDM, estimates

Chile | Exports | Mussels

Top three destinations

Unit: 1 000 tonnes, January-March

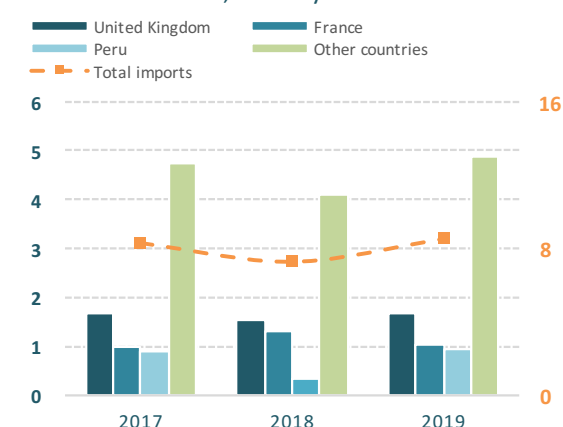


Source: Chile National Customs Office

EU28 | Imports | Scallops

Top three origins

Unit: 1 000 tonnes, January-March

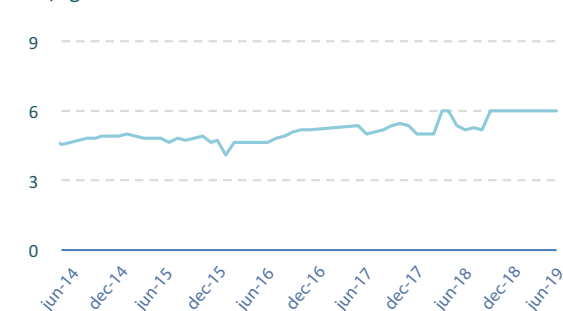


Source: Eurostat

Prices

Mussels: France

EUR/kg



Monthly average consumer prices in metropolitan France

Source: European Price Report

Clams

Clams are important in the bivalve international trade. It is mainly carried out between China (exporter) and Japan and the Republic of Korea (importers). In Europe, the main clam-consuming countries are Italy and Spain, mainly supplied by domestic production, from both capture and aquaculture. In the first quarter of 2019, trade was about stable at 2018 levels.

Outlook

Mussels are expected to increase their presence in new markets, such as the Russian Federation and the United States of America. Prices are likely to go up in line with additional demand.

The European Union (Member Organization), the largest market for scallops, with an average of 40 000 tonnes and 15 percent higher prices than the United States of America, has re-approved China for scallop exports to the EU28, from which it had been banned since 2007. It is likely that China will increase its scallop exports to the EU28 significantly, which means Chinese products will compete with those from other scallop suppliers.

The French research institution IFREMER have indicated through their oyster monitoring program the occurrence of higher oyster mortalities this summer in seed oysters, though it is too early to compare precisely with last year's results. The extremely hot summer in late June has had an impact on oyster mortality. The outlook for oyster production is bleak, with less production and probably higher prices towards the end of the year.

Clam prices in Southern Europe are likely to continue sky-high, as demand is surpassing supply. Some price normalization is expected towards the end of the year, when sales will start to slow down.



CRAB

■ GLOBEFISH HIGHLIGHTS

Canadian snow crab quotas up again

While the Canadian snow crab quotas for 2019 were cut earlier, they have now been adjusted upwards again. Quotas in the Gulf of St. Lawrence were increased by 32 percent, so more product will probably hit the market later in the year. Canadian snow crab prices were rising in May and June, but will it last?

Supplies

Canada's DFO in April increased the quota for snow crab in the southern Gulf of St. Lawrence to 32 480 tonnes for the 2019 season. This represents an increase of some 8 000 tonnes or 32 percent.

At the same time, the TAC for the province of Newfoundland and Labrador was reduced to 26 894 tonnes, down from 28 975 tonnes in 2018.

As of the end of May, about 50 percent (13 600 tonnes) of the snow crab quota for the Gulf of St. Lawrence and 66 percent (14 770 tonnes) of the Newfoundland quota had been landed. In addition, some 60 percent of the offshore quota in the Northwest Atlantic Fisheries Organization (NAFO), which amounted to 26 500 tonnes, had been landed by the end of May.

International trade

Global imports of all types of crab increased marginally during the first quarter of 2019. Total

RECENT NEWS

Environmental organizations are having an impact on crab fishing on the US West Coast. In mid-April, California's Department of Fish and Wildlife entered into an agreement with non-governmental organization (NGO) Center for Biological Diversity that obliged California crab fishers to take all crab traps out of the water by 15 April. At the time, an estimated 90 percent of the TAC had been caught. Originally, Dungeness crab season was set to last until 30 June in Central California and 15 July in Northern California. This settlement is likely to shorten the Dungeness crab season in 2020 also.

The reason for this settlement is that whales have been getting themselves entangled in the ropes to the crab traps that hang from the ocean surface to the seabed. A total of 31 entanglements were recorded on the US West Coast in 2017 and 45 were registered in 2018. Of these, some 25 appeared on the California coast in 2017 and 35 in 2018. Crab fishers claim that the reason for the increase in the number of entanglements is that there are more whales coming to the coast, an indication that these whales are not as endangered as suggested by the environmental groups.

imports amounted to 405 400 tonnes during the first quarter, compared to 398 400 tonnes during the same period in 2018. The United States of America imported 104 400 tonnes, about 3.3 percent less than in 2018. China and the Republic of Korea imported more, a total of 81 900 tonnes (+74 percent) and 50 100 tonnes (+10.4 percent) respectively.

Crab exports from the Russian Federation increased slightly during the first quarter of 2019, from 9 700 tonnes to 10 700 tonnes (+10.2 percent), while Chinese crab exports were slightly less during the first quarter this year compared to last year.

US imports of king crab were up sharply during the first three months of 2019, growing to 3 600 tonnes from 2 900 tonnes during this period in 2018. It has been reported that imports of king crab continued to increase in the month of April. Total US crab imports grew by 8.4 percent to 16 900 tonnes during the first quarter, compared to 15 600 tonnes during the first quarter of 2018. The Russian Federation was the main supplier, with 6 100 tonnes, up by 41.5 percent compared to 2018. China exported 60 percent less crab to the United States of America during the review period, with only 1 200 tonnes.

US imports of blue swimming crab fell by 8.2 percent during the first trimester of 2019. Overall imports of blue swimming crab in 2018 decreased marginally, but the value of these imports were up sharply, as the price for blue swimming crab rose. The major suppliers of swimming crab to the United States of America were Indonesia, China and the Philippines, though Viet Nam is also shipping a considerable amount.

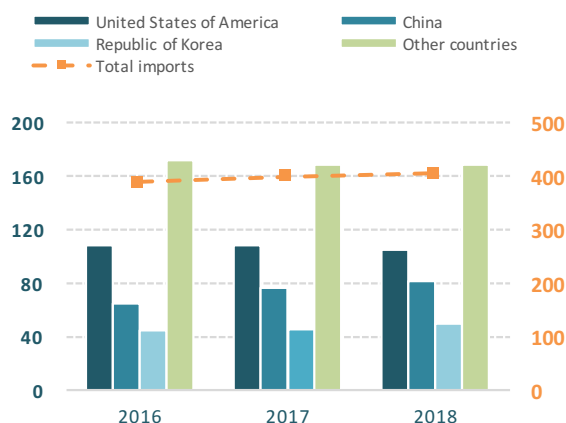
Prices

Prices for Canadian snow crab in mid-May were below USD 8 per lb for 5–8 oz carapaces. Since then, prices have gone up, and in mid-June, prices for the same size were at USD 8.40–8.55 per lb. According to Urner Barry, prices were expected to go up further to USD 8.65 soon. Among the reasons for these early price increases were the fact that Japanese buyers held back on their purchases in April, putting pressure on prices, but got very active in May, which pushed prices up again. At the same time, buyers in the United States of America also started buying early, helping to increase prices.

The high prices for Newfoundland snow crab in March and April were predicted to fall. In April, the price was set at CAD 5.38 per lb, which was such a high level that some observers felt one

Top three importers of crab

Unit: 1 000 tonnes, January-March

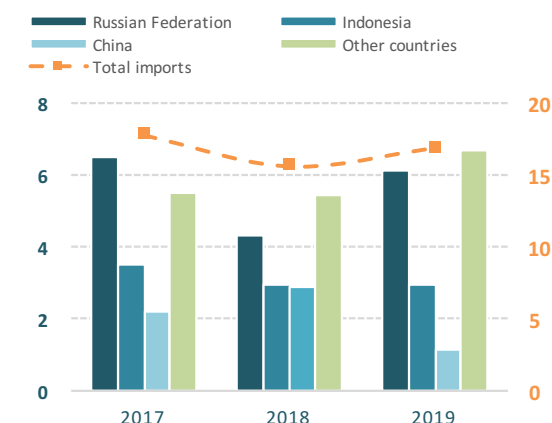


Source: TDM, estimates

USA | Imports | crab

Top three origins

Unit: 1 000 tonnes, January-March

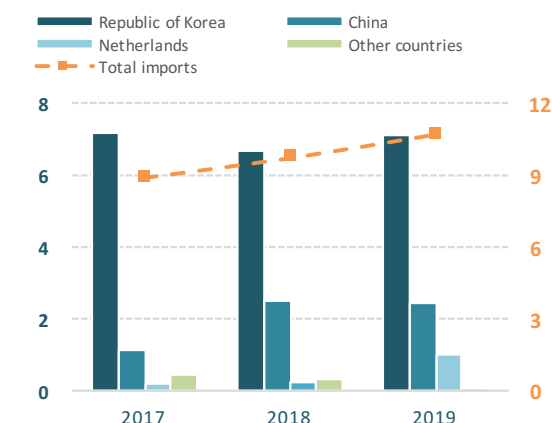


Source: US Census Bureau

Russian Federation | Exports | crab

Top three destinations

Unit: 1 000 tonnes, January-March



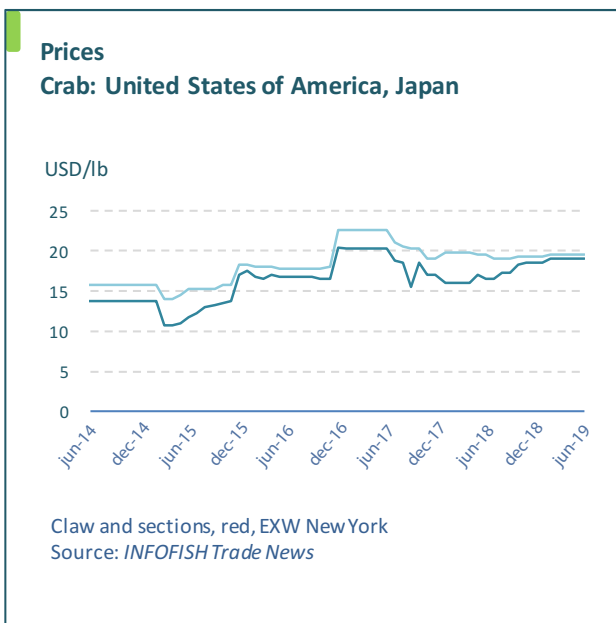
Source: Federal Customs Service of Russia



flights going out of Venezuela, which has been a supplier of swimming crab to the United States of America, because the US Department of Homeland Security banned all flights to and from Venezuela because of security risks. Importers managed to get Venezuelan blue crab but had to pay an extra USD 2.00 for flight and handling costs as they had to fly the crab from Venezuela to Panama and Costa Rica, and then transferred to US planes from there.

Outlook

Canadian landings of snow crab are set to increase somewhat in 2019, and this could affect prices negatively. Prices have been quite high and were rising in May and June but could level off in the next few months.



The California Dungeness crab fishery is expected to change dramatically in the near future, as an agreement between the California Department of Fish and Wildlife and the NGO Center for Biological Diversity cut the season short and introduced new regulations to eliminate the vertical ropes that hold the crab traps. This is to protect whales from becoming entangled in the ropes. The NGO claims that the whales are endangered, while the fishermen say that the reason why so many whales get themselves entangled in the ropes is that there are more whales now than previously.

might see buyers stopping to buy. In May, the price was set at CAD 4.90 per lb and in June it was increased again to CAD 5.07 per lb for crabs with a minimum four-inch carapace. Dungeness crab prices in California have increased twice this season, as a result of the shorter season.

US wholesale prices for blue swimming crab has been on a steady decline since May 2018, when they hit USD 30.00 per lb. Three factors seem to influence the price of blue swimming crab. First, it is the end of Ramadan, when supplies drop because many fishers take time off to celebrate and prices might rise. Second, US tariffs on Chinese red swimming crab squeezed prices and US importers turned to blue swimming crab from Indonesia. Third, there were no US

SPECIAL FEATURE

GLOBEFISH HIGHLIGHTS

Chinese sturgeon and caviar industry

Sturgeons in China and their conservation

Historically, sturgeons had an important role in people's ordinary lives in China. The earliest established record of sturgeons in China was during the Tang Dynasty (618–907 AD). During the Song Dynasty (960–1279 AD), fried sturgeon was a popular food. Today, sturgeons are becoming again popular on Chinese family tables.

Currently there are eight species of sturgeon in China, distributed in the Yangtze River basin and related estuaries, Heilongjiang River basin and the river basins in Xinjiang (see table 1).

TABLE 1. Species of sturgeon in China

SPECIES	HABITAT
<i>Huso dauricus</i>	Heilongjiang River
<i>Acipenser schrenckii</i>	Heilongjiang River
<i>Acipenser baeri</i>	Irtys River, Burutokay and Bosten Lake in Xinjiang
<i>Acipenser ruthenus</i>	Burutokay and related Basin in Xinjiang
<i>Acipenser nudiventris</i>	Yili River and Basin in Xinjiang
<i>Acipenser sinensis</i>	Yangtze River and adjacent estuary
<i>Acipenser dabryanus</i>	Yangtze River upstream and basin
<i>Psephurus gladius</i>	Downstream of Jinsha River, Yangtze River, Qiantang River and adjacent estuaries

China joined the International Union for Conservation of Nature (IUCN) in 1981 to address sturgeon conservation. *Acipenser sinensis*, *Acipenser dabryanus* and *Psephurus gladius* were listed among the first class of the List of Wild Animals under State Priority Conservation in 1989 in China. As a result, all fishing was strictly banned except for scientific

research. The other species of Acipenseriformes in China, including *Acipenser schrenckii*, *A. baeri*, *A. ruthenus* and *A. nudiventris*, were listed in the second class of the List of Wild Animals under State Priority Conservation of China. Since then, the Chinese Wild Animal Conservation Laws and Aquatic Animal Protection regulations have been widely amended. Fishers are now more aware of the critical situation of sturgeon so they are protecting the species consciously. Illegal sturgeon fishing and smuggling bans have been enforced to protect the natural sturgeon resources.

Series of sturgeon releasing stations for repopulation were established in 1988, including *Qindeli Schrenckii* sturgeon breeding and releasing station, Fuyuan County sturgeon releasing station, Luobei sturgeon releasing station, Heilongjiang provincial aquatic animal rescue center, the test base and the stock farm of Dauricus sturgeon of Heilongjiang Provincial Special Fish Research Institute, Shijingjiekuo of Tongjiang City releasing station. All stations release fingerlings and juveniles in Heilongjiang Basins. The *A. sinensis* Conservation Area of Yichang Hubei Province was established in 1996. In 2000, Leichuang–Hechuang State Level Rare Fish Species Reservation Area was set up to protect *Psephurus gladius* and *A. dabryanus* in the Yangtze River. The Jiangsu Provincial Taizhong *A. sinensis* Conservation Area and Breeding Research Center was founded in the same year.

Since 2002, fingerlings and juveniles of *A. sinensis* are being released in the Yangtze River every year to restock the population. Releasing made great contributions to restock the sturgeon population in its original habitats.

Sturgeon Farming in China

According to the 1988 Wild Animal Protection Law, all enterprises involved in sturgeon

breeding, sales, production of caviar and any other sturgeon products must apply for the Aquatic Wild Animal Domesticated and Breeding Permit as well as the Aquatic Wild Animal Operation and Use Permit that are issued by provincial wildlife administration authorities. All sturgeon stock in farms must be recorded and comply with the traceability system of food safety.

China started artificial sturgeon reproduction studies in 1957. *A. schrenckii* was the first species to be bred successfully. Following that, between 1973 and 1976, *A. sinensis* and *A. dabryanus* were successfully reproduced in artificial conditions, for the release of fingerlings and juveniles to restock the sturgeon resources in the rivers.

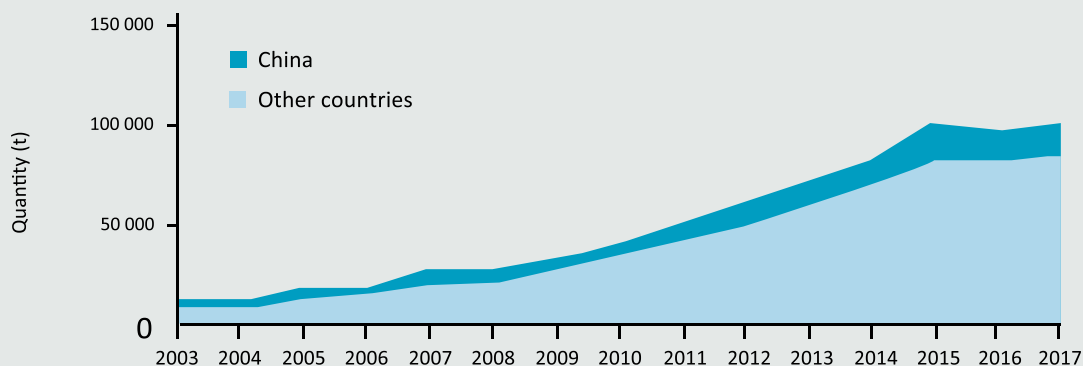
Commercial sturgeon farming in China started in the last decade of the 20th century. All farmed species were imported with the exception of

A. schrenckii, which originated in China. *A. baerii*, *A. gueldenstaedtii*, *H. huso* and *A. ruthenus* were imported from the Russian Federation, Germany, France and Italy. Some hybrid species such as *A. schrenckii* (♂) x *H. dauricus* (♀), *A. baerii* (♂) x *A. schrenckii* (♀) were generated and are now widely farmed in China.

The boom in development of sturgeon farming in China started in the early 21st century. The total production of sturgeon in China grew from 10 900 tonnes in 2003 to over 90 000 tonnes in 2017, which made China the largest sturgeon producer in the world (Fig. 1). The main sturgeon products in China are fresh 1–2 kg fish for meat consumption, which is unique in the world where normally sturgeon is raised for caviar production.

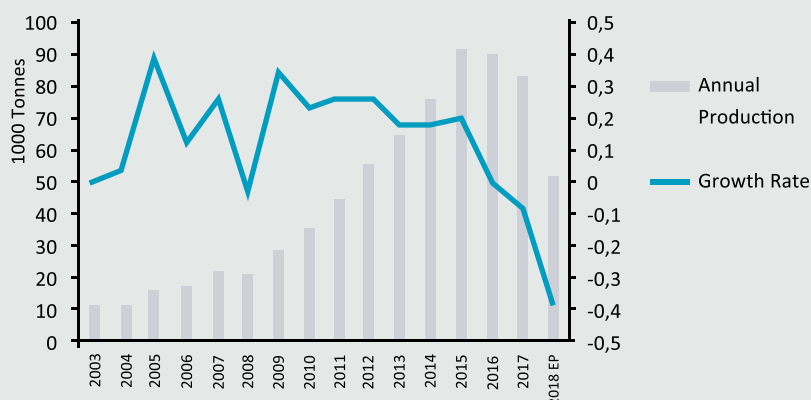
The main species farmed in China are hybrids (80 percent), *A. baerii* (10 percent), *A. schrenckii* and others (10 percent).

Fig. 1. Sturgeon production in China and the world



Source: China Fishery Statistical Yearbook and FAO FishStatJ.

Fig. 2. Annual sturgeon production and growth rate in China



Data source: China Fishery Statistical Yearbook

There are several farming patterns implemented in China, including raceways, cages, as well as recirculation systems.

Due to environmental regulations implemented in recent years, many water areas are now barred from aquaculture. A large number of sturgeon farms shut down, leading to a significant decrease in sturgeon production and stocking in the farms (Fig. 2). As a result, Chinese sturgeon production is not expected to increase but most likely to remain steady or slightly decrease in the future.

Contribution of sturgeon farming to rural economic development in China

China is a developing country with an imbalanced economic development between urban and rural areas. Improving economic development is key to improve living standards of the rural

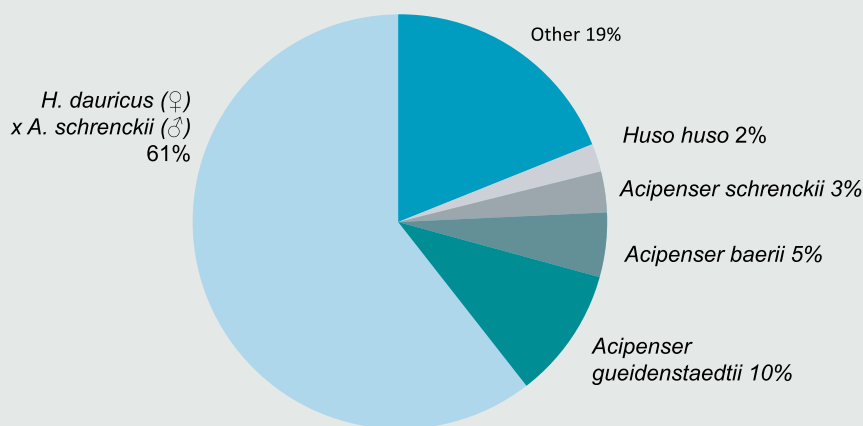
population. Many sturgeon farms are based in poverty and minority areas, making sturgeon farming an important source of employment in local communities. Sturgeon farms are providing tens of thousands of jobs in their local areas.

The CITES administration offers an opportunity for local authorities and people to learn and understand the importance of environmental conservation. This program directly resulted in the improvements for wildlife and environment conservation in local areas.

Caviar production in China

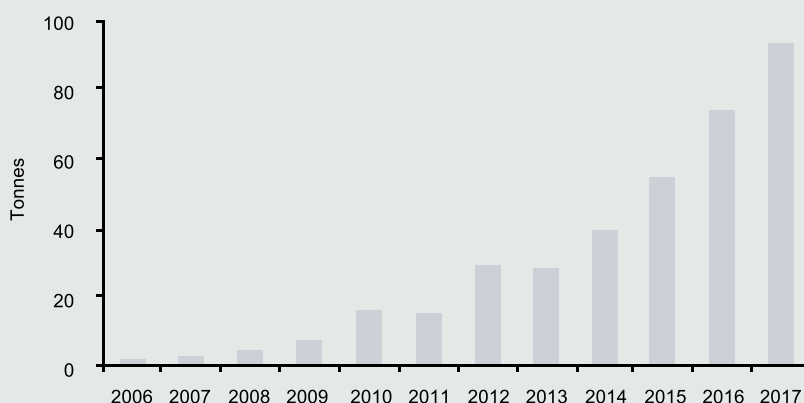
Due to the long sexual maturity cycle of female sturgeons and the high risk in the investment in sturgeon farming, only 20 percent of sturgeon in China is used in caviar production. The production of Chinese cultured caviar grew from 0.7 tonnes in 2006 to 135 tonnes in 2018, as female sturgeons cultured by companies in

Fig.3. Proportion of farmed sturgeon species used for caviar production in China



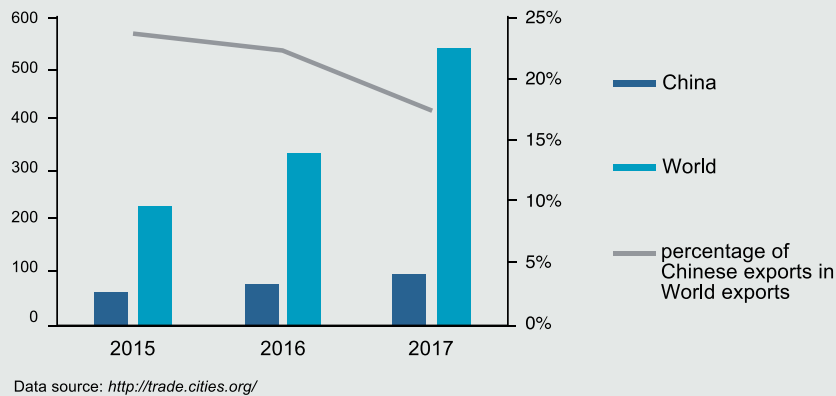
Data source: China Aquatic Products Processing and Marketing Alliance

Fig. 4. Quantity of China caviar exports from 2006-2017



Data source: China's General Administration of Customs

Fig.6. Percentage of China's exports of caviar in total caviar trade in the world by volume



Hunan, Zhejiang, Yunnan, Sichuan and other regions are now mature.

The first batch of farmed caviar that China exported in 2006 was only 0.6 tonnes. Since then, exports have grown significantly to 93 tonnes in 2017, and China has become a large caviar producer and exporter in the world (Fig. 4).

Although total caviar exported from China has increased, the growing rate of Chinese caviar exports is still relatively insignificant compared with that of the total caviar trade in the world (Fig. 6). Although the world trade caviar data in Fig. 6 from CITES includes re-exports of caviar, the tendency would not change if those amounts were excluded.

Following the reduction in farmed sturgeon production, caviar production will decrease accordingly. Chinese caviar production is expected to change from quantity growth to quality improvement.

The world's most common caviar species are *A. baerii* and *A. gueldenstaedtii*, which China does not produce. The most common caviar produced in China is sourced from a local sturgeon species, which is a hybrid of *H. dauricus* and *A. schrenckii*.

Chinese caviar market

China will become the largest consumer market in the world. Varieties of food from abroad such as wine, cheese, and salmon are now usual to Chinese consumers. Caviar is a luxury item in Europe and the United States of America and Chinese consumers are now gradually accepting it. With the increasing acceptance of foreign food and a growing middle class, caviar is increasing popularity in China. The total volume of caviar sold in China is still lower than in other major markets but it is growing significantly.

Caviar producers and distributors have made considerable efforts to promote caviar in the Chinese market. Caviar promotion events are hosted weekly in different cities in China, and include consumer information campaigns, events and gatherings.

Outlook

China is one of the most important caviar producers and exporters in the world. Due to rising family incomes as well as urbanization of rural areas, domestic demand for caviars is increasing rapidly. With the lessened supply caused by environmental regulations along with the growing domestic demand, caviar prices in China are expected to be steady and growing in the future.

Fig.6. Percentage of China's exports of caviar in total caviar trade in the world by volume

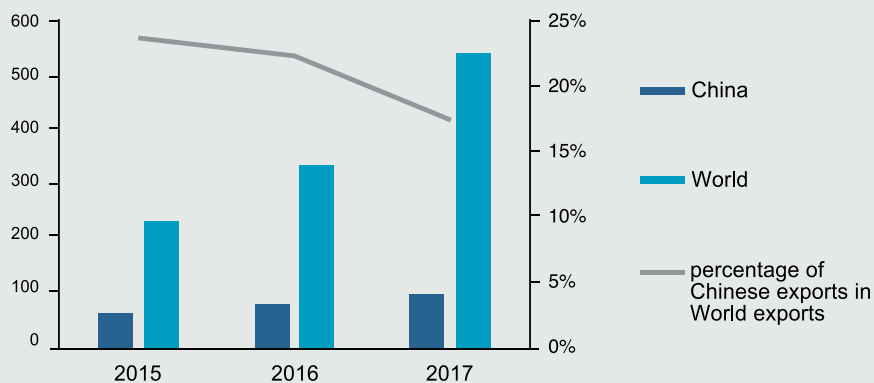
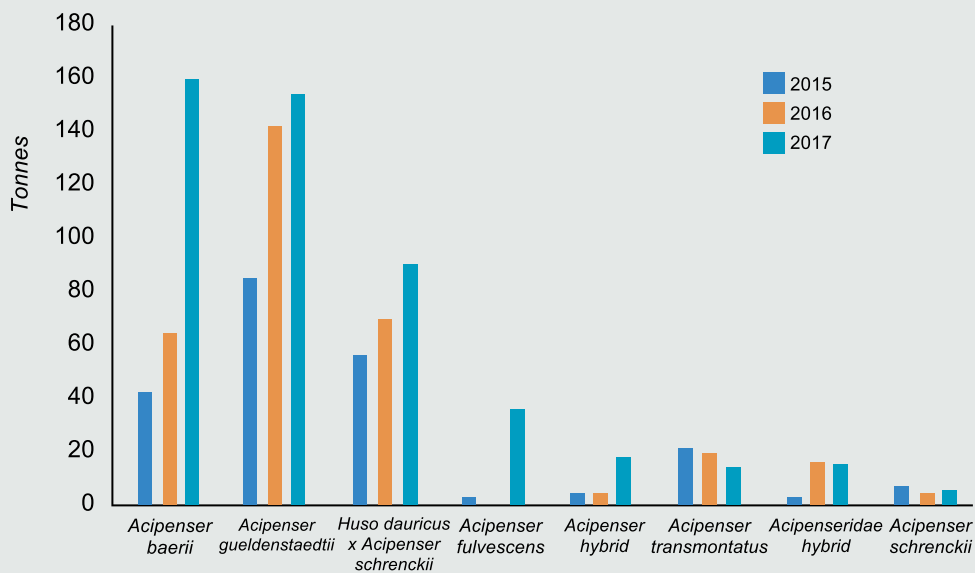


Fig.7. Major caviar trade quantity in world (2015-2017)



Data source: <http://trade.cities.org/>

FOOD SAFETY ISSUES

GLOBEFISH HIGHLIGHTS

Detentions and Rejections of crab in Canada, the European Union (Member Organization), Japan and United States of America in 2018

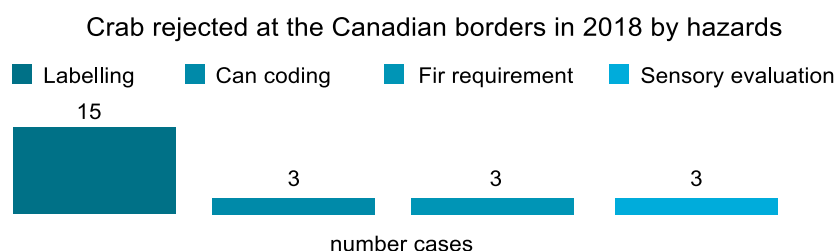


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The main importing countries of crab are the United States of America, Japan and China. The major producing countries of crab are China, Indonesia and the United States of America. This analysis describes border rejections of crab in Canada, the European Union (Member Organization), Japan and the United States of America, where data was available. Rejections are categorized by chemical, microbiological, histamine and other risk categories. In addition, general causes such as packaging issues, allergens, improper health certificate, poor temperature control and labelling issues are described.

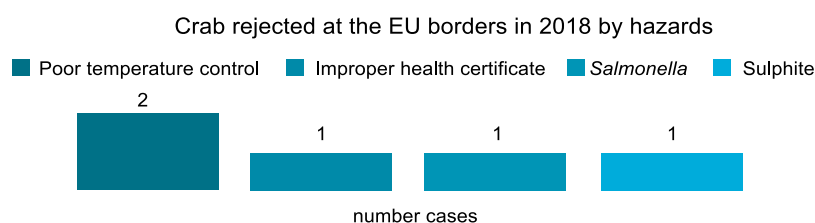
Canada

Crab border rejections in Canada decreased from 25 cases in 2017 to 24 in 2018, and represented only three percent of the total rejections of fishery products at the border last year. Labelling issues was the leading cause representing 63 percent of all crab detentions. It was followed by can coding, food information regulation (FIR) requirement and sensory evaluation with three cases each one.



European Union (Member Organization)

Crab detentions in the EU28 increased from four cases in 2017 to five in 2018, representing two percent of the total rejections of fishery products at the European border last year. The main cause of rejections were within the “other causes” category, with three cases. The main problems were related to poor temperature control (two cases) and improper health certificate (one case). They were followed by Salmonella and the presence of sulphites with one case each one.

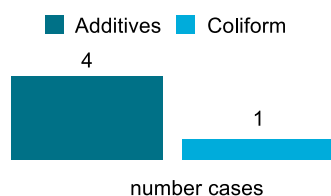


Source: Canadian Food Inspection Agency

Japan

Crab detentions and rejections in Japan decreased from 13 cases in 2017 to five in 2018, representing five percent of the total rejections of fishery products at the Japanese border. Border detentions and rejections in the Japanese market in 2018 were due to chemical issues with four cases of presence of non-permitted additives. They were followed by coliform bacteria with only one case recorded.

Crab rejected at the Japanese borders in 2018 by hazards

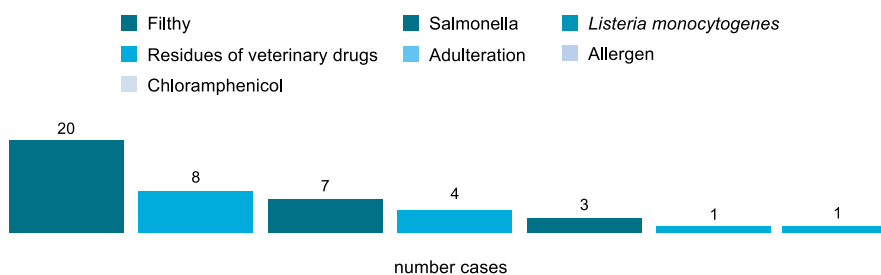


Source: Ministry of Health, Labour and Welfare, Japan

United States of America

Crab detentions and rejections in US borders increased from 42 cases in 2017 to 44 in 2018, representing three percent of the total rejections of fish and fishery products at the border. The majority of rejections were due to other causes, followed by microbiological and chemical causes. Within the category of other causes, the leading specific cause was “filthy”¹ with 20 cases, followed by adulteration (three cases) and one case related to allergens. The main microbiological issues were due to the presence of Salmonella (eight cases) and Listeria monocytogenes (seven cases). The main chemical issues were related to the presence of residues of veterinary drugs with four cases not specified and one case due to the presence of chloramphenicol.

Crab rejected at the US borders in 2018 by hazards



Source: Food and Drug Administration

References:

- For further information visit the following website: www.fao.org/in-action/globefish/fishery-information/border-rejections/en/

¹ In the Food and Drug Administration (FDA) Violation Code Translation “filthy” is defined as a condition when “the article appears to consist in whole or in part of a filthy, putrid, or decomposed substance or be otherwise unfit for food.”

EVENTS

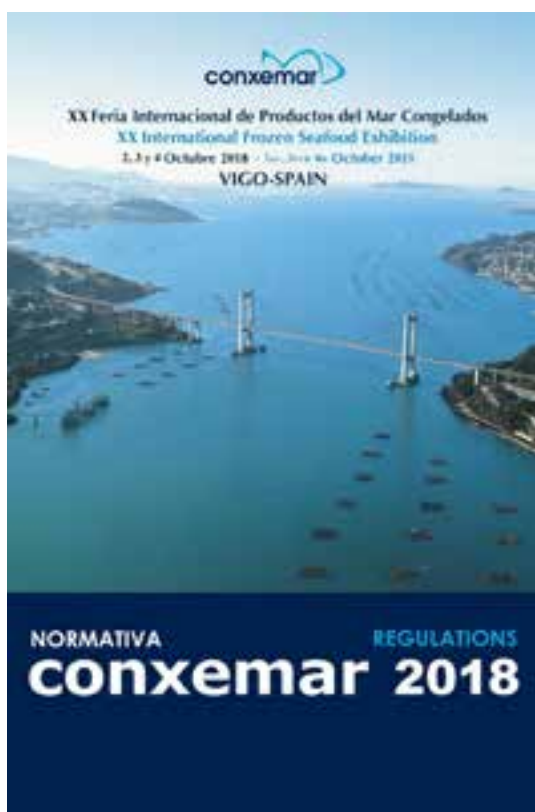
■ GLOBEFISH HIGHLIGHTS

GLOBEFISH to meet the Spanish seafood sector during the 21st International Frozen Seafood Exhibition

From 1 to 3 October 2019, the 21st International Frozen Seafood Exhibition organized by CONXEMAR will be held at the Instituto Feiral de Vigo (IFEVI). CONXEMAR is held annually in Vigo, an important fishing port in Europe. It serves as the meeting point for the entire processing branch, distributors, importers and exporters of frozen seafood products. The exhibition is the largest annual event dedicated to the frozen seafood sector in Spain.

In addition to offering an extensive exhibition area where fisheries stakeholders can meet and discuss international market trends, CONXEMAR will host the eighth edition of the FAO-CONXEMAR Congress, taking place on 30 September 2019. This year, the congress will focus on social sustainability, which has become a major concern in the fisheries sector due to incidents of labour right violations and human rights abuses found at different stages of the fisheries value chain. Industry experts from across the globe will participate in a series of panel discussions aimed at deepening commitment to the issue of social sustainability.

Once again, GLOBEFISH will be present at the exhibition. Come visit us at our booth! More information on **the 21st International Frozen Seafood Exhibition** can be found at <https://conxemar.com/en>.



Did you know?

CONXEMAR is the Spanish Association of Wholesalers, Importers, Manufacturers and Exporters of fish products and Aquaculture, a consolidated union of 222 companies working in the frozen seafood Spanish sector.

CONXEMAR supports and represents its members and the Spanish seafood industry at the European, national and regional level, and has been an FAO GLOBEFISH supporting member since 2012.



For more information please contact:

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