



MARKET ACCESS SECRETARIAT Global Analysis Report

Crustaceans

China

March 2014



EXECUTIVE SUMMARY

China's capacity to produce fish and seafood to meet both domestic and export needs has developed rapidly due to improvements in aquaculture production, capture practices and supply chain processing. The country is nearing the limits of what can be achieved by technology, and given the increases in consumer consumption being noted, China will have to rely on imports.

This increase in demand is particularly suited to crustaceans, often considered a premium product. Improved living standards and urbanization mean people have more disposable income for higher end grocery purchases and for eating out. For example, Rabobank suggests that the highest ten percent of income groups consume more than seven times the volume of shrimp compared to the lowest income groups. In comparison, the difference in pork consumption between the highest and the lowest income groups is 1.4 times the volume. Euromonitor International reinforces this, projecting that the sales of crustaceans should have a Compound Annual growth Rate (CAGR) of 2.3% between 2012 and 2017.

This report provides detailed statistics on global and Canadian imports of crustaceans and their products by HS code to China and to China's most important districts and offers important background to those companies and associations interested in export to China

Important Note: Please be advised that the 2012 Harmonized Code 6-digit level changes will be reflected in the January trade data of most countries. These changes are color coded for your convenience. New codes will be blue; discontinued codes will be red; and modified codes will be green.

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DEFINITION AND TYPES OF CRUSTACEANS

According to Health Canada, crustaceans are aquatic animals that have jointed legs, a hard shell and no backbone, such as crab, crayfish, lobster, prawns and shrimp. Fisheries and Oceans Canada further defines crustaceans as having a flexible, articulated carapace. Crustaceans are considered an excellent source of protein, vitamins (including niacin and vitamin B12) and minerals and are low in fat. Some well-known examples of crustaceans include:

American lobster (Homarus americanus)

The lobster, king of Canadian shellfish, is famous for its delectable meat. This is the most profitable of all the species that are harvested commercially in the Gulf Region.



Snow crab (Chionoecetes opilio)

This crustacean belongs to the spider crab family. It is one of the most important commercial species and one of the most highly prized shellfish in the Gulf Region.



Pink shrimp (Pandalus borealis)

This is a small crustacean belonging to the same order as lobsters and crayfish. It is commonly found in areas where there is a sand or mud bottom. It eats other small bottom-dwelling crustaceans and plankton.



Rock crab (Cancer irrigates)

The habitat of the common rock crab extends from Labrador all the way to South Carolina. It is found in large numbers in the southern Gulf of St. Lawrence, owing to the region's many bays and to the shallow waters of which the rock crab is particularly fond. This resource is attracting increasing interest from Gulf Region fishermen.



Nutritional Content of Crustaceans per 100 g

Category	Lobster	Crab	Crayfish	Shrimp	Prawns
Water	77%	-	-	76%	-
Protein	19 g	18 g	19 g	20 g	17 g
Fat	1 g	1 g	1 g	2 g	2 g
Carbohydrates	-	-	-	0.9 g	0.5 g
Cholesterol	95 mg	60 mg	89 mg	153 mg	91 mg
Calories	91	89	89	106	91

Source: MAPAQ, 2013



CRUSTACEAN PRODUCTION IN CHINA

Crustacean production in China has been steadily trending upwards, particularly in inland waters as compared to marine areas. This rate of increase is beginning to taper off as China is reaching its capacity for aquaculture operations, and the advances made in wild capture, supply chain production, processing and other logistics are reaching their capacity for further substantial progress. The chart below identifies this trend through statistics from the Fisheries and Aquaculture Information and Statistics Service of the Food and Agriculture Organization (FAO). Shrimp production in China has been particularly interesting as it providing examples of how successful aquaculture can be in meeting domestic supply, and the negative influence of over-harvesting wild species. Recently disease has been particularly hard on shrimp production in Southeast asia, including China (FAO).

Crustacean Production in China 2007 - 2011 (tonnes)

Ocean Area	Species	2007	2008	2009	2010	2011			
	Crustaceans Fresh								
Inland waters	Crabs, sea-spiders	123,581	132,546	124,672	137,037	138,859			
	Freshwater crustaceans	1,459,798	1,558,018	1,751,021	1,866,338	1,828,418			
	Shrimps, prawns	1,265,636	1,268,074	1,333,778	1,448,019	1,555,384			
	Crustaceans Fresh	2,849,015	2,958,638	3,209,471	3,451,394	3,522,661			
	Sub-total Inland waters		2,958,638	3,209,471	3,451,394	3,522,661			
	Crustaceans Fresh								
	Crabs, sea-spiders	64,955	632,636	639,353	684,372	710,865			
Marine	Krill, planktonic crustaceans	0	0	0	1,956	16,014			
areas	Misc. marine crustaceans	306,969	279,873	303,002	315,360	294,752			
	Shrimps, prawns	1,206,645	1,117,141	1,172,480	1,134,632	1,178,572			
	Crustaceans Fresh	2,161,569	2,029,650	114,835	2,136,320	2,200,203			
	Sub-total Marine areas		2,029,650	2,114,835	2,136,320	2,200,203			
	TOTAL	5,010,584	4988,288	5,324,306	5,587,714	5,722,864			

Source: FAO Fisheries and Aquaculture Information and Statistics Service, 2013





OVERVIEW OF GLOBAL EXPORT TRENDS TO CHINA

The well-documented changes in the Chinese population and their lifestyles, such as a rise in disposal income, an increase in urbanization, greater access to a range of products at retail, more diversity in foodservice, and a growing interest in healthy eating, have all contributed to increased consumer appetite for fish and seafood products, including crustaceans. Latest available data indicates that the Chinese per capita consumption of fish and seafood was estimated to be 31.9 kg in 2009 (FAO) and is only expected to increase so importing product from abroad is necessary to meet the growing need. In terms of the specifics of consumer demand, the Chinese are currently more concerned about food safety and prices than sustainability practices, however, sustainability seafood options are beginning to be recognized (Datamonitor, 2013).

In terms of exports, Canada has consistently been one of the top supplying countries to China for crustaceans, as has the United States. Southeast Asian countries and New Zealand have increased their exports and may have advantages due to their proximity to China.

Top 20 Countries Exporting Crustaceans to China in 2012 (\$U.S.)

Country	2007	2008	2009	2010	2011	2012
World	321,318,770	318,434,452	336,365,680	506,711,839	806,837,771	1,072,446,010
Canada	89,744,069	108,649,358	95,593,854	141,398,279	178,915,505	226,174,001
United States	12,284,298	29,537,432	22,093,537	30,947,392	84,410,289	168,598,956
New Zealand	602866	220,448	191,517	9,249,489	64,875,691	143,068,377
Thailand	21,772,799	17,310,329	24,737,005	58,762,861	61,151,482	92,693,276
Indonesia	11,405,204	22,549,197	19,379,705	28,041,368	36,876,754	77,949,052
Myanmar	5,589,953	11,124,584	24,071,551	32,937,672	38,958,098	44,880,430
Ecuador	163,941	0	1,687,435	6,337,301	37,087,343	39,275,245
Bangladesh	4,641,254	4,741,644	6,347,557	13,885,063	22,606,920	31,619,079
India	12,070,816	7,543,977	10,071,113	13,573,032	17,498,055	29,782,924
Greenland	19,141,668	18,242,421	22,894,696	28,627,034	16,225,824	19,175,491
Russia	48,816,943	24,038,734	20,530,773	11,842,602	22,201,297	18,612,447
South Africa	2,046,189	951,235	2,819,576	13,491,060	22,477,260	18,476,451
Argentina	1,467,234	97,829	2,704,089	1,241,308	9,707,696	16,297,551
Australia	9,720,945	9,183,205	5,715,862	15,550,637	51,035,428	14,782,039
Pakistan	3,433,845	5,111,446	5,851,027	7,120,660	13,869,316	14,662,552
Vietnam	6,669,267	5,945,427	6,087,493	13,021,119	20,406,973	14,243,506
Mexico	14,637,403	2,658,987	9,594,516	11,515,044	32,067,962	13,098,935
United						
Kingdom	6,180,836	6,274,007	4,511,679	7,310,999	8,486,305	11,877,603
Korea South	6,846,057	5,810,114	5,064,834	4,049,980	6,145,478	10,317,847
Malaysia	10,488,059	12,966,278	11,827,065	21,395,684	12,306,203	8,562,934

Source: Global Trade Atlas, 2013

The charts on pages 5 and 6 provide historical detail from 2008 - 2012 on the value and volume of global exports to China, and to the top ten districts in China as defined by HS Code data from Global Trade Atlas data.



Value of Global Crustacean Imports in China by Species 2008 – 2012 (\$US)

HS Code*	Description	2008	2009	2010	2011	2012
TOTAL		318,434,452	336,365,680	506,711,839	80,6837,771	1,072,446,010
030621	Rock Lobster, Other Sea Crawfish Lv/Ch/Drd/Salted	14,036,647	12,426,169	61,742,633	188,607,904	263,903,169
030624	Crabs, Raw (Live Etc), Cooked (Stm Etc) Not Frozen	40,457,588	67,672,449	119,335,892	181,418,126	252,553,601
030614	Crabs, Including In Shell, Frozen	116,811,369	93,982,637	86,584,453	142,205,107	206,626,844
030617	Shrimps, Prawns, Frozen, Nesoi	0	0	0	0	153,426,527
030616	Cold-Water Shrimps And Prawns, Frozen	0	0	0	0	78,771,403
030627	Shrimps And Prawns, Except Cold-Water, Not Frozen	0	0	0	0	69,244,550
030629	Crustcns Nesoi Lve/Fr/Chl/Dry/Sltd/Brn Flrs H Cnsm	1,944,840	2,509,356	3,602,926	5,487,682	23,917,002
030619	Crustaceans Nesoi Ckd Stmg/Boilg Frzn Flrs Mls Etc	1,298,680	15,410	1,828,708	3,431,463	12,850,171
160529	Shrimp/Prawns Prep/Preserved In Airtight Container	0	0	0	0	4,417,675
030611	Rock Lobster And Other Sea Crawfish, Frozen	304,322	1,607,795	4,209,937	5,480,759	3,103,923
160510	Crab, Prepared Or Preserved	13,588,232	2,671,265	7,422,876	10,625,688	1,206,907
030626	Cold-Water Shrimps And Prawns, Not Frozen	0	0	0	0	1,043,346
160300	Extracts Etc. Of Meat, Fish, Crustaceans, Etc.	790,916	564,077	1,020,753	709,933	746,874
160521	Shrimp & Prawns Prep/Preserved Not Airtight Contnr	0	0	0	0	590028
160540	Crustaceans, Nesoi, Prepared Or Preserved	677,883	97,118	956,374	685,542	43,990
160520	Shrimps And Prawns, Prepared Or Preserved	2,809,916	7,016,236	3,752,643	4,187,278	0
030613	Shrimps And Prawns, Including In Shell, Frozen	112,061,396	129,779,329	187,771,591	210,943,886	0
030623	Shrimps/Prawns Inc Live, Fr/Ch/Drd/Salted/In Brine	13,652,663	18,023,839	28,483,053	53,054,403	0

Source : Global Trade Atlas, 2013

Value of Global Crustacean Imports in China by Top Ten Districts 2008 – 2012 (\$US)

District	2008	2009	2010	2011	2012
Shanghai	45,690,211	68,612,953	137,504,735	283,254,561	36,154,5518
Qingdao	140,054,606	107,542,842	113,646,773	185,427,171	225,925,248
Guangzhou	5,604,355	11,329,453	20,741,516	55,298,461	104,502,879
Dalian	47,656,687	49,871,106	45,528,039	79,555,404	96,702,901
Beijing	11,813,451	12,713,365	22,840,639	44,374,647	89,011,737
Shenzhen	21,747,299	19,264,573	52,706,568	54,130,655	73,652,334
Tianjin	16,712,069	23,369,340	33,946,282	19,324,000	35,747,284
Ningbo	4,264,005	7,799,094	13,334,766	13,531,130	20,393,496
Zhanjiang	4,817,526	14,768,813	32,258,742	20,558,287	18,537,323
Xiamen	3,104,327	1,978,337	6,161,470	16,257,577	13,086,183

Source: Global Trade Atlas, 2013.



Volume of Global Crustacean Imports in China 2008 – 2012 (kg)

HS Code*	Description	2008	2009	2010	2011	2012
TOTAL		31,8434,452	336,365,680	506,711,839	806,837,771	1,072,446,010
030621	Rock Lobster, Other Sea Crawfish Lv/Ch/Drd/Salted	14,036,647	12,426,169	61,742,633	188,607,904	263,903,169
030624	Crabs, Raw (Live Etc), Cooked (Stm Etc) Not Frozen	40,457,588	67,672,449	119,335,892	181,418,126	252,553,601
030614	Crabs, Including In Shell, Frozen	116,811,369	93,982,637	86,584,453	142,205,107	206,626,844
030617	Shrimps And Prawns, Frozen, Nesoi	0	0	0	0	153,426,527
030616	Cold-Water Shrimps, Prawns, Frozen	0	0	0	0	78,771,403
030627	Shrimps And Prawns, Except Cold- Water, Not Frozen	0	0	0	0	69,244,550
030629	Crustcns Nesoi Lve/Fr/Chl/Dry/Sltd/Brn Flrs H Cnsm	1,944,840	2,509,356	3,602,926	5,487,682	23,917,002
030619	Crustaceans Nesoi Ckd Stmg/Boilg Frzn Flrs Mls Etc	1,298,680	15,410	1,828,708	3,431,463	12,850,171
160529	Shrimp/Prawns Prep/Preserved In Airtight Container	0	0	0	0	4,417,675
030611	Rock Lobster And Other Sea Crawfish, Frozen	304,322	1,607,795	4,209,937	5,480,759	3,103,923
160510	Crab, Prepared Or Preserved	13,588,232	2,671,265	7,422,876	10,625,688	1,206,907
030626	Cold-Water Shrimps, Prawns, Not Frozen	0	0	0	0	1,043,346
160300	Extracts Etc. Of Meat, Fish, Crustaceans,	790,916	564,077	1,020,753	709,933	746,874
160521	Shrimp & Prawns Prep/Preserved Not Airtight Contnr	0	0	0	0	590,028
160540	Crustaceans, Nesoi, Prepared Or Preserved	677,883	97,118	956,374	685,542	43,990
160520	Shrimps, Prawns, Prepared Or Preserved	2,809,916	7,016,236	3,752,643	4,187,278	0
030613	Shrimps, Prawns, Including In Shell, Frozen	112,061,396	129,779,329	187,771,591	210,943,886	0
030623	Shrimps/Prawns Inc Live, Fr/Ch/Drd/Salted/In Brine	13,652,663	18,023,839	28,483,053	53,054,403	0

Source: Global Trade Atlas, 2013

Volume of Global Crustacean Imports in China by Top Ten Districts 2008 – 2012 (kg)

District	2008	2009	2010	2011	2012
Qingdao	36,069,190	30,078,529	32,519,732	34,996,682	40,232,870
Shanghai	11,602,996	16,049,598	25,069,673	31,587,196	30,762,718
Dalian	15,596,158	15,220,473	13,673,379	14,323,953	17,820,492
Guangzhou	1,133,416	2,503,408	4,825,616	8,049,403	6,595,440
Tianjin	4,595,732	6,509,034	8,732,323	4,418,742	6,180,612
Beijing	1,601,718	1,581,520	2,872,498	4,164,910	6,055,839
Shenzhen	3,004,433	2,699,288	6,588,648	4,030,390	4,214,253
Ningbo	1,093,040	1,861,689	2,615,032	2,615,124	2,612,102
Zhanjiang	1,219,422	2,661,113	6,084,712	2,868,542	2,428,300
Kunming	4,450,605	5,006,317	4,487,138	2,749,395	21,58,615

Source: Global Trade Atlas, 2013



OVERVIEW OF CANADIAN EXPORT TRENDS TO CHINA

Canadian crustaceans are well positioned to take advantage of the new interest in premium seafood by Chinese consumers. This interest opens up opportunities to provide fresh, frozen and further processed products at retail and in foodservice. Although consumers have traditionally held a strong preference for fresh products, their busier lifestyles, an introduction to more Western style cuisines and increased disposal income will make innovative, and healthy processed products more attractive going forward. The statistics on pages 7 and 8 provide historical detail from 2008 - 2012 on the value and volume of global exports to China from Canada as defined by HS Code data from Global Trade Atlas data.

Value of Canadian Crustacean Exports to China 2008 – 2012 (\$US)

HS Code*	Description	2008	2009	2010	2011	2012
TOTAL		108,649,358	95,593,854	141,398,279	178,915,505	22,6174,001
030614	Crabs, Including In Shell, Frozen	54,514,031	40,944,625	53,332,915	79,780,991	109,472,207
030616	Cold-Water Shrimps And Prawns, Frozen	0	0	0	0	43,717,658
030624	Crabs, Raw (Live Etc), Cooked (Stm Etc) Not Frozen	18,205,690	28,389,755	43,011,032	46,704,105	42,045,116
030621	Rock Lobster, Other Sea Crawfish Lv/Ch/Drd/Salted	66,158	119,506	440,058	315,096	23,426,953
030617	Shrimps And Prawns, Frozen, Nesoi	0	0	0	0	4,750,677
030611	Rock Lobster And Other Sea Crawfish, Frozen	128,552	746,699	1,424,419	3,127,218	2,236,674
160510	Crab, Prepared Or Preserved	8,384,491	745,482	3,777,711	5,394,635	514,233
160529	Shrimp/Prawns Prep/Preserved In Airtight Container	0	0	0	0	6,489
030619	Crustaceans Nesoi Ckd Stmg/Boilg Frzn Flrs Mls Etc	0	217	79,162	0	3,994
030613	Shrimps And Prawns, Including In Shell, Frozen	27,252,938	24,550,493	39,257,820	43,590,066	0
030623	Shrimps/Prawns Inc Live, Fr/Ch/Drd/Salted/In Brine	11,389	0	0	0	0
160540	Crustaceans, Nesoi, Prepared Or Preserved	0	0	0	1,998	0
160520	Shrimps And Prawns, Prepared Or Preserved	0	64,34	75,147	1,396	0
030629	Crustcns Nesoi Lve/Fr/Chl/Dry/Sltd/Brn Flrs H Cnsm	86,109	32,243	15	0	0

Source: Global Trade Atlas, 2013



Volume of Canadian Crustacean Exports to China 2008 - 2012 (kg)

HS Code*	Description	2008	2009	2010	2011	2012
TOTAL		27,135,770	23,319,125	34,307,343	31,525,207	34,265,341
030614	Crabs, Including In Shell, Frozen	13,366,623	10,305,616	12,643,203	11,812,646	16,184,456
030616	Cold-Water Shrimps And Prawns, Frozen	0	0	0	0	12,268,793
030624	Crabs, Raw (Live Etc), Cooked (Stm Etc) Not Frozen	1,959,324	3,052,452	4,623,851	4,982,761	2,784,273
030617	Shrimps And Prawns, Frozen, Nesoi	0	0	0	0	1,387,679
030621	Rock Lobster, Other Sea Crawfish Lv/Ch/Drd/Salted	2,961	6,643	23,847	54,786	1,181,734
160510	Crab, Prepared Or Preserved	1,406,592	198,425	1,215,050	806,728	253,839
030611	Rock Lobster And Other Sea Crawfish, Frozen	10,576	81,454	302,381	301,938	203,268
030619	Crustaceans Nesoi Ckd Stmg/Boilg Frzn Flrs Mls Etc	0	24	19,250	0	915
160529	Shrimp/Prawns Prep/Preserved In Airtight Container	0	0	0	0	384
160540	Crustaceans, Nesoi, Prepared Or Preserved	0	0	0	90	0
160520	Shrimps And Prawns, Prepared Or Preserved	0	25,000	25,096	96	0
030629	Crustcns Nesoi Lve/Fr/Chl/Dry/Sltd/Brn Flrs H Cnsm	1145	346	14	0	0
030613	Shrimps And Prawns, Including In Shell, Frozen	10,387,304	9,649,165	15,454,651	13,566,162	0
030623	Shrimps/Prawns Inc Live, Fr/Ch/Drd/Salted/In Brine	1,245	0	0	0	0

Source: Global Trade Atlas, 2013

NEW PRODUCTS

This section provides current examples of processed products being introduced in China using crustaceans as in ingredient.

Crab Pickled in Wine

Company: Tingtop Food Brand: Yi Zhi Ding / Tingtop

Category: Processed Fish/Meat/Egg

Date Published: Apr 2012

Launch Type: New Variety/Range Price in US Dollars: 18.89

Package Type: Jar Pack Size: 1.8 kg Storage: Shelf Stable **Product Description**

Crab Pickled in Wine is said to be quality certified.



Crab Roe Flavoured Sunflower Seeds

Company: Hao Gong Zhai Food Brand: Shun Xiang Fang Zui Bu Ting

Category: Snacks

Date Published: Aug 2012 Launch Type: New Product Price in US Dollars: 0.24 Package Type: Flexible Pack Size: 30 g Storage: Shelf Stable Product Description

Crab Roe Flavoured Sunflower Seeds is promoted as



Aromatic and Crispy Shrimp

Company: Lu Cheng Foods Brand: Lu Cheng

Category: Snacks

Date Published: Aug 2013 Launch Type: New Packaging Price in US Dollars: 0.59 Package Type: Flexible Sachet

Pack Size: 60.00 g Storage: Shelf stable Product Description:

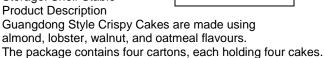


This shrimp snack is said to made with quality sea shrimps and blended with various spices. It is processed according to traditional technique and the most advanced scientific formula. It is promoted as high in protein, low in fat, rich in trace elements, convenient and delicious.

Guangdong Style Crispy Cakes

Company: Yanghang Food Brand: Yanghang Category: Bakery Date Published: May 2012 Launch Type: New Product Price in US Dollars: 4.66 Package type: Carton

Pack size: 224 g Storage: Shelf Stable Product Description



Premium Flavoured Shrimp Sausages

Company: Guo Lian Fisheries

Brand: Guo Lian

Category: Processed Fish/Meat/Egg

Date Published: Jan 2013

Launch Type: New Variety/Range

Price in US Dollars: 2.19
Package type: Flexible
Pack size: 25 g
Storage: Shelf Stable
Product Description:

These sausages are said to be convenient

and ready- to-eat. The product retails in both a 100g pack containing four 25g units; and a 200g pack containing

eight 25g units.



Lobster Flavoured Potato Chips

Company: Calbee Four Seas (Shantou)

Brand: Four Seas Category: Snacks

Date Published: Feb 2011 Launch Type: New Packaging Price in US Dollars: 0.63 Package type: Flexible

Pack size: 47 g Storage: Shelf Stable Product Description:

These potato chips are said to be made with fresh potatoes and seasoned with lobster flavouring.



- Although purchasing products endorsed by sustainable seafood programs is not a priority in China, consumers are interested in food safety and quality. Products from "pristine" environments such as Canada could be perceived as high quality and affordable luxury.
- Although there is a perception that fresh is best in this sector, interest in processed product is increasing. Euromonitor anticipates a compound annual growth rate (CAGR) of 11% for canned/preserved fish/seafood products and 13.2% CAGR for frozen processed fish/seafood products between 2012 and 2018.
- Historically China has relied on freshwater species such as carp and low-value molluscs for its seafood consumption. The emerging middle class consumer will be seeking out species such as salmon, scallops and lobster (Rabobank).



RESOURCES

Datamonitor Consumer. (2013)

Euromonior International. (July 2013). Fish and Seafood in China, Category Briefing.

Euromonitor International. (July, 2013). Consumer Lifestyles in China

FAOSTAT. (2013)

Rabobank (October, 2012) The Dragon's Changing Appetite How China's Evolving Seafood Industry and Consumption Are Impacting Global Seafood Markets. Rabobank Industry Note 341



Crustaceans in China

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