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### Fishery Products

### Annual

### 2008

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**Report Highlights:**

China's aquatic production in 2009 is forecast at 49.5 MMT, up two percent from the estimated 48.6 MMT in 2008. Production growth is mainly driven by strong domestic consumption due to greater disposable income and export-oriented aquatic processing. Total aquatic trade value in 2009 is forecast to increase moderately from the estimated \$13.1 billion with export value at \$ 9.7 billion in 2008. The current global financial crisis will likely slow down aquatic import growth for processing and re-export. In 2008, the United States remained China's largest buyer and second largest supplier of aquatic products. The recent opening of U.S. Food and Drug Administration offices in China is expected to strengthen confidence in China's aquatic food products and food safety.

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## Table of Contents

<b>Executive Summary</b> .....	<b>3</b>
<b>Production</b> .....	<b>3</b>
Aquatic production is forecast to reach 49.5 MMT in 2009 .....	3
Aquatic catch production remains stable .....	6
Aquaculture farmed area expansion continues.....	6
Aquaculture production faces new challenges.....	6
Aquatic processing is mainly driven by exports.....	6
National aquatic statistics data adjusted down .....	7
<b>Consumption</b> .....	<b>8</b>
<b>Trade</b> .....	<b>9</b>
Aquatic product exports are expected to continue growing in 2009 .....	9
Aquatic processing trade is expected to level off.....	9
Aquatic trade with the United States is expected to grow .....	10
Fishmeal imports are forecast at 1.2 MMT in 2009 .....	11
Value-added aquatic product exports continue to increase.....	11
More measures adopted to make aquatic food exports to the United States safer .....	12
<b>Policy</b> .....	<b>12</b>
China's policy favors smooth growth for aquatic production and exports.....	12
Implementation of aquaculture licensing system advanced .....	13
The policy on aquatic processing trade remains unchanged .....	13
<b>Marketing--Healthy, Nutritious, and Safe Products</b> .....	<b>13</b>
HRI food service sector remains as major end user .....	14
Middle class consumers look for quality products & health benefits.....	14
Ready to cook, portion control is the trend .....	14
Fishery products on the rise in QSR sector .....	14
Competition, Country Origin, and Branding.....	15
Prices.....	15
<b>Trade Tables</b> .....	<b>17</b>
Trade of Certain Aquatic Products (Volume: MT; Value: \$ Million) .....	17
Aquatic Products Trade by Country of Origin (Value: \$ million) .....	18
Imports of Fish, Frozen by Country of Origin (Value: \$ million; Volume: MT).....	19
Imports of Flatfish by Country of Origin (Value: \$ million; Volume: MT) .....	20
Imports of Cod by Country of Origin (Value: \$ million; Volume: MT).....	21
Imports of Plaice by Country of Origin (Value: \$ million; Volume: MT) .....	22
Imports of Salmon by Country of Origin (Value: \$ million; Volume: MT).....	23
Imports of Crustaceans by Country of Origin (Value: \$ million; Volume: MT).....	24
Imports of Mollusks and Other by Country of Origin (Value: \$ million; Volume: MT) .....	25
Exports of Fish Fillet by Destination (Value: \$ million).....	26
Exports of Prepared and Packaged Fish and Caviar by Country (in \$ million) .....	26
Exports of Prepared and Preserved Crustacean and Mollusks by Destination (Value: \$ million) .....	27
Exports of Prepared and Preserved Mollusks by Destination (Value: \$ million) .....	27
Exports of Shrimps and Prawns by Destination (Value: \$ million; Volume: MT).....	28
Exports of Shrimps and Prawns by Category (Value: \$ Million; Volume: MT) .....	29
Exports of Crawfish by Destinations (Value: \$ million) .....	30
Exports of Eel Products by Destinations (Value: \$ million) .....	30
Exports of All Tilapia Products by Destination (Value: \$ million).....	31
Exports of Tilapia/Prepared or Preserved by Destination (Value: \$ million).....	31
Exports of Tilapia/Fillet by Destination (Value: \$ million) .....	31
Exports of Tilapia/Fillet by Destination (Volume: MT).....	32
Exports of Tilapia/Prepared and Preserved by Destination (Volume: MT) .....	32

## Executive Summary

China's 2009 aquatic production is forecast to reach 49.5 MMT, up two percent from an estimated 48.6 MMT in 2008. Much of this production growth is due to the continued expansion of aquaculture which accounted for 69 percent of total aquatic production during 2007. The increase in China's aquatic production is tied both to its growing domestic demand as well as a strong export market. China's rapid economic growth has increased disposable incomes, thereby encouraging greater aquatic products consumption. The expansion of the aquaculture area in both coastal seawater and fresh water contributed greatly to the aquatic production growth while the aquatic catch production remains stable to declining in the next couple of years. Yield increases triggered by technological advances also boosted production. The aquatic processing sector, which is mainly export-driven, is also expected to expand further in the coming years.

Aquatic trade is forecast to grow in 2009 with China's trade surplus expected to increase from the estimated \$6.3 billion in 2008. Despite an expected weak demand by major importing countries as a result of the current financial crisis, export-oriented aquaculture and the dynamic processing trade are likely to grow at a marginal rate. The United States is the second largest recipient of China's processed aquatic exports while ranks as the second largest supplier of China's seafood imports. Aquatic trade between China and the United States is forecast to grow in 2009 with "Fish/Frozen" (HS Code 0303) continuing to be the major category imported from the United States. The export product mix to the United States is diversified (seasoning and cuts) and valued-added. The recent opening of the U.S. Food and Drug Administration (FDA) offices in China is expected to strengthen the confidence of Chinese aquatic product exports and facilitate smooth trade in 2009 and beyond.

Sustained high GDP and disposable income growth rates will continue to boost domestic consumption of aquatic products in 2009. However, aquatic imports for domestic consumption are growing at a slow pace. Nevertheless, high quality natural aquatic products from the United States are expected to steadily increase in volume and value.

Definition of terms: Aquatic products are both defined as cultured (farmed) and wild caught aquatic products; Aquatic products include fish, shrimp/prawn/crab, shellfish, algae, and other; Aquatic catch production is total volume of both fresh and sea water caught wild aquatic products; Aquatic culture production is the total volume of both fresh and seawater cultured (farmed) aquatic products. This report will use Chinese terminology to maintain consistency between Chinese statistics and product categories.

## Production

### **Aquatic production is forecast to reach 49.5 MMT in 2009**

China's aquatic production for 2009 is forecast to reach 49.5 MMT, up by two percent from the estimated 48.6 MMT in 2008. China remains the world's largest aquaculture producer. The rise in aquatic production is attributed to the country's rapid economic growth, rising disposable incomes and greater consumption of aquatic products, together with strong growth of aquatic exports. While official statistics are not yet available, the 2008 aquatic production is estimated to increase by two percent over the 47.5 MMT in 2007. According to China's Ministry of Agriculture (MOA), aquatic production for the first five months of 2008 reached 15.6 MMT, up more than four percent over the previous year to date figure. MOA expected a normal production growth for the remainder of 2008. Industry sources also showed that total aquatic production in the first eight months of 2008 reached 26.5 MMT, up three percent over the previous year. The production growth is mainly attributable to freshwater production at 12.5 MMT, up seven percent over the same period in 2007, while sea catch production stood at 6.9 MMT, down more than two percent. Another official media

source reported that total aquatic production for 2008 is expected to reach 48.9 MMT and the total freshwater aquatic production reached 17.4 MMT as of the end of October 2008. The devastating winter storms that hit south China from January through February of 2008 had some impact on aquaculture production, however, official data on damage is not available. Some industry sources reported losses of more than 4,000 MT of tilapia and 48 million tilapia fingerlings in Guangdong and Hainan provinces. Shrimp production was also affected. MOA reported that the industry quickly recovered and aquaculture production is likely to maintain normal growth in 2009 assuming favorable weather conditions in the major production areas in South China.

**Table 1 China's aquatic production (Unit: 1000 Metric Ton)**

Category/Year	2004	2005	2006	2007	2008*
Total Aquatic Production	42,466	44,199	45,836	47,475	48,600
-Seawater Aquatic Production	24,045	24,659	25,096	25,509	26,000
---Seawater Catch	12,532	12,551	12,455	12,435	12,400
---Seawater Culture	11,513	12,108	12,642	13,073	13,600
-Freshwater Aquatic Production	18,421	19,540	20,740	21,966	22,600
---Freshwater Catch	2,096	2,210	2,204	2,256	2,250
---Freshwater Culture	16,325	17,330	18,536	19,710	20,350

Source: 2008 China Statistics Yearbook/Table 12-20; \* Estimated by FAS/Beijing

China's continued aquatic production increase is fueled by aquaculture expansion which is estimated to account for 69 percent of total aquatic production in 2007. According to China's National Statistics Bureau (NSB), the yearly aquatic production growth rate from 2001 to 2007 averaged four percent. During this same period, the annual cultured (farmed) aquatic production growth rate, however, grew at more than six percent. Aquatic catch production remained stagnant from 14.3 MMT in 2001 to 14.7 MMT for 2007. Such a trend is likely to continue both domestically and worldwide in the foreseeable future and will only be limited by declining wild fishery resources. In contrast, aquaculture production will be driven by the further exploitation of water resources along with higher yields. Freshwater and seawater culture production both increased in 2007, up six percent and three percent over the previous year, respectively. Total cultured aquatic production reached 32.8 MMT, accounting for 69 percent of total aquatic production in 2007.

**Table 2 China's seawater and freshwater aquatic production by category (Unit: 1000 Metric Ton)**

Category/Year	2004	2005	2006	2007	2008*
Seawater Fish Production	8,837	9,139	8,921	8,913	9,100
Seawater Shrimp, Prawn, and Crab	2,714	2,813	2,994	2,989	3,021
Seawater Shellfish	9,656	10,081	10,467	10,682	10,800
Seawater Algae	1,308	1,339	1,376	1,388	1,056
Seawater Other	1,530	1,286	1,338	1,536	1,494
Freshwater Fish	16,344	17,372	18,225	19,085	19,500
Freshwater Shrimp, Prawn, and Crab	1,324	1,403	1,678	2,021	1,687
Freshwater Shellfish	461	463	509	505	509
Freshwater Other	291	302	328	356	335

Source: 2007 China Agriculture Statistics Report; \*Estimated by FAS/Beijing

Fish production stood at 28 MMT in 2007, up three percent from the 27.1 MMT in 2006. It remains the largest category, accounting for 59 percent of the total aquatic production, followed by shellfish and crustaceans at 24 and 11 percent, respectively. Freshwater fish

reached 19.1 MMT, accounting for 68 percent of the total fish production. Cultured fish accounted for 92 percent of all freshwater fish production in 2007. Carp is the most popular cultured freshwater fish with total production at 12.9 MMT in 2007, accounting for 74 percent of total freshwater cultured fish production. Tilapia production maintained high growth in 2007 and reached 1,134,000 MT. Industry sources reported that despite the damages due to the devastating snow storm, tilapia production in 2008 is likely to reach 1.2 MMT. Tilapia production is also expected to continue growing in the near future in response to the strong demand for China's tilapia products by foreign markets in particular the United States. Catfish production is likely to exceed 230,000 MT in 2008 from 210,000 MT in 2007. Shellfish continued to be the largest group of sea-cultured species with 2007 production exceeding 9.9 MMT, and accounting for 76 percent of the total sea cultured production. Cultured crustacean production in 2007 reached 2.6 MMT. In all, freshwater production represented 65 percent of the total cultured crustacean production in 2007. Cultured *Penaeus vannamei* (also known as white shrimp) production reached 1,065,000 MT in 2007, accounting for 41 percent of total cultured crustacean production.

In 2008, Shandong, Guangdong, and Fujian provinces are expected to remain the three largest aquatic product producers mainly because of their large sea cultured production. Guangdong, Hubei and Jiangsu provinces rank as the top three in terms of freshwater production due to their high freshwater cultured production as a result of abundant freshwater resources in the area.

**Table 3 China's top-8 aquatic producing provinces in 2007 (Unit: Metric Ton)**

Province	Total production	Sea production	Freshwater production
<b>Total</b>	47,475,200	25,508,880	21,966,322
Shandong	7,127,665	5,980,743	1,146,922
Guangdong	6,643,357	3,731,201	2,912,156
Fujian	5,319,950	4,664,713	655,237
Zhejiang	4,151,340	3,376,194	775,146
Jiangsu	4,089,904	1,199,155	2,890,749
Liaoning	3,612,708	3,021,559	591,149
Hubei	2,980,434	0	2,980,434
Guangxi	2,460,560	1,433,236	1,027,324
Other	11,089,282	2,102,079	8,987,205
Source: 2007 China Agriculture Statistics Report			

Freshwater aquaculture exists nationwide, particularly for carp. However, some species' production is limited to certain regions due to available resources and climate conditions. For example, tilapia production by three provinces Guangdong, Guangxi, and Hainan continued to dominate, accounting for 82 percent of the total 1,134,000 MT in 2007. Catfish production, on the other hand, is located primarily in Hubei, Sichuan, and Jiangsu, collectively produced 49 percent of the national total. Jiangxi and Anhui provinces' production also exceeded 20,000 MT in 2007, respectively. The largest producers for both fresh and seawater shrimp and prawn are Guangdong, Jiangsu, Guangxi, Zhejiang, and Hainan provinces. Guangdong continued to be the largest shrimp producer with total cultured production at 507,000 MT, of which *Penaeus vannamei* production at 395,900 MT in 2007. Eel production is concentrated in Fujian, Guangdong, and Jiangxi provinces with much of it destined to the Japanese market. The combined cultured shellfish production of Shandong, Fujian, Guangdong, and Liaoning provinces accounted for 74 percent of the 2007 total.

### Aquatic catch production remains stable

The total 2009 catch production is forecast similarly to 2008's estimate of 14.6 MMT. According to NSB, annual seawater catch between 2004 and 2007 ranged from 12.4 to 12.5 MMT and accounted for 85 percent of the total catch. Freshwater catch production remained small at about 2.2 MMT in the past few years. Industry sources report that total catch is unlikely to increase significantly in the foreseeable future due to limited freshwater and seawater natural resource availability. Though seawater catch data for other territorial seas is not officially released, most industry insiders believe it is difficult to increase production significantly.

### Aquaculture farmed area expansion continues

The total aquaculture area continued expanding in 2007, exceeding 5.7 MHA, up more than four percent over 2006. The combined freshwater and seawater areas increased by 227,000 HA, with 167,000 HA for freshwater and 60,000 HA for seawater in 2007. Shandong and Liaoning provinces added 53,000 hectares of seawater culture area, while Guangxi and Sichuan provinces increased freshwater culture area by 118,000 hectares in 2007 mainly through developing reservoir and pond resources. Seawater culture area is likely to grow moderately in the coming years. Freshwater culture area is also expected to increase because some reservoirs/lakes are not fully utilized for aquaculture purposes due to growth constraints such as lack of transportation and technical services. However, MOA indicated that limited water resources and environmental concerns pose new challenges to the expansion of aquaculture areas and additional production gains shall be achieved through technology dissemination and innovation.

**Table 4 China's Aquaculture Area Resources (Unit: Hectares)**

Year	Total	Seawater	Freshwater	Freshwater-Pond	Freshwater-Reservoir	Freshwater-lake	Freshwater-Other
2007	<b>5,745,090</b>	1,331,478	4,413,612	1,840,626	1,299,349	1,040,123	123,786
2006	<b>5,517,758</b>	1,271,700	4,246,307	NA	NA	NA	NA
Change	<b>+4.1%</b>	<b>+4.7%</b>	<b>+3.9%</b>				

Source: 2007 China Agriculture Statistics Report

### Aquaculture production faces new challenges

Despite the fast growth of the aquaculture sector, the industry's expansion has mainly relied on increasing the production capacity and farming area. In reviewing the fast growth of the aquaculture sector in past decades, MOA said the industry faces three major challenges: the deterioration of fishery resources and overfishing continues to threaten fishery ecological environment; food safety-related incidents increase along with production growth and fishery production is increasingly affected by natural disasters including storms, typhoons, and unexpected freezing temperatures. On February 25, 2008, MOA implemented an "Action Plan on Promoting Healthy Aquaculture Production". The main purpose is to further enhance the aquaculture production licensing system to cover 90 percent of all aquaculture farms, and to establish 200 healthy aquaculture demonstration farms nationwide. To ensure the quality of aquatic products, particularly goods for export, MOA and the Administration for Quality Supervision, Inspection and Quarantine of China (AQSIQ) adopted a strict licensing regime for all export-oriented farms and processing establishments. MOA and AQSIQ conduct frequent field audits of export-oriented aquaculture farms. Aquatic products for export are subject to mandatory inspection and must be accompanied by AQSIQ inspection certificates.

### Aquatic processing is mainly driven by exports

According to MOA, the total number of aquatic processing facilities continued to increase in 2007, reaching 9,796, up by 241 over 2006. Processing capacity also rose to 21 MMT from

18 MMT in 2006. The number of cold storages facilities increased to 6,857, up 305 over 2006. The total aquatic products processed in 2007 reached 16.8 MMT compared to 16.3 MMT in the previous year. This accounted for about 35 percent of the total aquatic production in 2007. Total processed aquatic product volume stood at 13.4 MMT, of which 8.1 MMT was frozen or frozen processed goods. Industry sources indicate that this situation reflects domestic consumers enduring preference for live aquatic products. The processing sector's capacity to expand is mainly driven by export market demand which led to the construction of new production facilities.

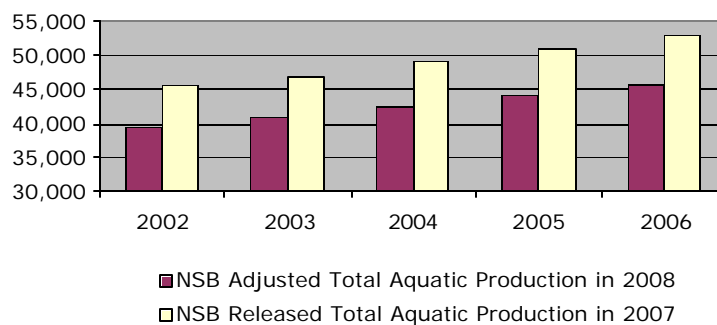
The dynamic processing trade also spurred greater investment in 2008. Industry sources estimate that the processing trade currently accounts for less than 40 percent of China's aquatic product export value and is expected to steadily increase. Processed aquatic products using domestic raw material (mostly cultured products) is also mainly export driven. Domestic consumption of processed aquatic products remains relatively small compared to the total annual domestic aquatic product consumption. Although some consumers in large cities have begun purchasing processed aquatic products, most Chinese consumers still prefer live or fresh aquatic goods. Despite complaints of foreign trade barriers on Chinese aquatic products, MOA acknowledged that the barriers also forced the sector to invest more in producing value-added, quality products.

Aquatic processing bases are located within or near major aquatic production regions. Out of the total 9,796 processing facilities, 6,668, or 68 percent are concentrated in Zhejiang, Shandong, Fujian, and Guangdong provinces. These provinces are also major aquaculture producers and are equipped with port and cold storage facilities. Many foreign traders have also entered the processing trade industry in these provinces.

#### National aquatic statistics data adjusted down

Based on results from the Second National Agriculture Census (conducted in 2006), NSB reduced the total domestic aquatic production data from 1997 to 2006 (Chart-1-based on 2007 and 2008 China Statistics Yearbook). The huge drop in the production figure was mainly a result of over-estimated aquaculture area and production, together with an over-reported sea catch production (by approximately 2 MMT yearly since 1997). The Agriculture Census results are used in estimating the production in 2007 and 2008. Despite the NSB adjustment in production, the yearly growth rate in the past ten years remained generally unchanged. According to MOA's 11<sup>th</sup> Five-Year (2006-2010) Plan for the Fishery Industry (11<sup>th</sup> Five-Year Fishery Plan), aquatic production is expected to grow by more than three percent annually.

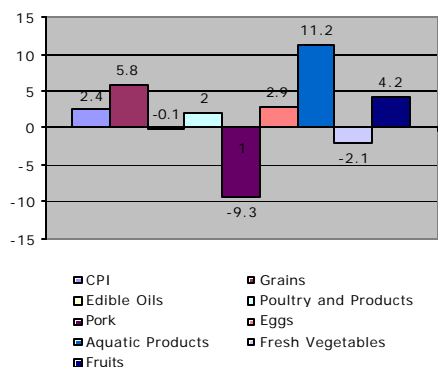
Chart 1 Comparison of NSB Aquatic Production Data from 2002 to 2006 (in 1,000 metric ton)



## Consumption

China's per capita aquatic product consumption is forecast to continue increasing in 2009. Based on NSB's information, per capita consumption for urban dwellers in 2007 was 14 Kg, up from 13 Kg in the previous year, while for rural residents it was 5.4 Kg, up 0.4Kg. In

CPI and Prices for Major Food Products in November 2008



2008, consumption of aquatic products is expected to increase as a result of the continued growth in consumer incomes and higher prices for pork and other meat products for most of the year. Industry insiders believe per capita consumption will continue to increase steadily with strong potential for growth in the rural sector larger than that of the urban sector because current rural consumption is relatively low at the moment.

MOA statistics show that the average wholesale price for aquatic products in the first half of 2008 increased by more than twelve percent over the previous year. Industry sources reported that average wholesale price for aquatic products in the first nine months increased

nearly 14 percent. According to NSB, China's CPI in November 2008 increased by just two percent with pork prices down nine percent. However, the price for aquatic products increased by more than 11 percent compared to the same month in 2007. In general, aquatic prices remained stable while prices for other animal products surged in 2007. Prices for aquatic products are expected to grow in 2008 along with increases in the price for feed and other inputs. Many industry sources expect aquatic consumption by both urban and rural residents to grow in 2008 and continue in 2009. Based on MOA's 11<sup>th</sup> five-year plan, the nationwide per capita aquatic product consumption is expected to reach 12 Kg by 2010.

**Table 5 Per capita consumption trends of aquatic and animal products (Kg)**

Per Capita Consumption Trends for Aquatic Products						
Year	2002	2003	2004	2005	2006	2007*
Urban	13.2	13.4	12.5	12.55	12.95	14.2
Rural	4.4	4.7	4.5	4.94	5.01	5.36
Per Capita Consumption Trends for Pork, Beef, Poultry and Mutton						
Urban	32.52	32.94	29.22	32.83	32.12	31.8**
Rural	17.78	18.24	17.89	20.76	20.54	18.74**
* Urban Population of 593.79 million (45%); Rural Population of 727.5 million (55%); **Pork consumption down 1.8 Kg and 2 Kg for urban and rural, respectively mainly due to tight supply and high price in 2007.						
Source: 2008 China Statistical Yearbook Table 9-9 and 10/29						

The per capita consumption of aquatic products in coastal provinces is higher than in other regions. Apart from obvious geographic differences, coastal city residents' high level of disposable income influences consumption patterns as well. Table 6 lists the top ten provinces and municipalities with the highest expenditures on aquatic products in 2007. This ranking is virtually unchanged from 2006. They are either located in coastal regions or rank high in disposal income. Consumption is also related to dietary tradition as people in western provinces prefer other types of animal protein. Most Chinese consumers are still price sensitive when purchasing aquatic products. Freshwater cultured products such as carp and shrimp/prawn are popular for consumption at home and restaurants due to the affordable price and freshness. Seawater products, including yellow croaker and ribbonfish continue to be favorites to most people in North China. Processed shellfish/shrimp/prawns



and tilapia fillet are also increasingly popular among consumers in large cities. High quality imported seafood such as lobster, geoducks, salmon, and crab, however, are widely used by hotels and restaurants for high-end consumers. Along with the growing middle-class in large cities and coastal regions with booming economies, the potential for these products remains promising as Chinese families opt for a more diversified and nutritious diet.

**Table 6 Per Capita Annual Living Expenditure of Urban Residents by Region in 2007**

Region	Aquatic Product Expenditure RMB Value	Disposable Income Rank	Disposable Income Value
Fujian	747	7	15,506
Shanghai	669	1	23,623
Zhejiang	598	3	20,574
Guangdong	489	4	17,699
Hainan	477	21	10,997
Jiangsu	326	5	16,378
Tianjin	323	6	16,357
Liaoning	271	11	12,300
Shandong	242	8	14,265
Guangxi	225	14	12,200
Beijing	209	2	21,989
Nationwide Average	244	NA	13,786

Source: 2008 China Statistical Yearbook/Table 9-15

Because Chinese consumers prefer live products to fresh and frozen products, most restaurants keep fish tanks that allow customers to choose their own fish, shrimp, lobster, crab, and other aquatic products when dining out. Most wet markets and some supermarkets also allow consumers to purchase live aquatic products. This tradition appears to be changing due to the increasingly fast-paced life of cities, as many families prefer ready-to-cook aquatic products to save time. Processed products, including processed fish, shellfish, mollusks, and shrimp/prawns, are therefore becoming increasingly popular in hypermarkets in large cities.

## Trade

### **Aquatic product exports are expected to continue growing in 2009**

China's aquatic trade value and volume are expected to continue growing but at a more moderate pace in 2009. Total aquatic trade value for 2008 is estimated at \$13.1 billion with exports valued at \$10 billion, up six and nine percent respectively over the previous year. Aquatic import value is estimated at \$3.4 billion in 2008, down slightly from the \$3.5 billion in the previous year. The trade surplus is expected to hit \$6.3 billion, up 16 percent from 2007. Aquatic exports continued to be the largest category in all-agriculture exports. Increased prices for raw aquatic products in the global market in part attributed to growth of total trade value. According to the World Trade Atlas (WTA), total aquatic export volume decreased by one percent in the first ten months of 2008 as compared with the previous year. Industry sources explained that the growth in total value and decline in volume reflected shift to more value-added product mix.

### **Aquatic processing trade is expected to level off**

Aquatic imports are forecast to be stable in 2009 from the estimated 2.4 MMT imports in 2008. The estimated 2.4 MMT imports in 2008 are only three percent higher than that in 2007. The yearly growth rate for aquatic import volume reached six and 12 percent in 2007 and 2006, respectively. According to MOA, the aquatic import slowdown showed the

processing trade was challenged by increased prices of raw fish in international markets, coupled with higher prices for energy, labor, and other inputs domestically. The appreciation of the Chinese currency also eroded profit margins. The export prices for aquatic products, however, remained lower than the industry expected from 2006 to 2008. MOA is concerned that the "low price and profit strategy" employed by some exporters will hurt the sustainable development of the industry and product quality is likely to be compromised.

There is no official data that can accurately distinguish the share of aquatic imports destined for China's processing trade. Industry insiders believe that out of the total aquatic export value, the export value of the processing trade is estimated at less than 40 percent, while domestic aquatic products (using domestically produced raw material) is estimated at more than 60 percent for 2008. Imports for domestic consumption are also growing but at a rather slow pace. Government policy continues to favor the expansion of the processing industry which can absorb much of the growing labor force. According to WTA, in the first ten months of 2008, imports by category are characterized by decreased volume of frozen fish (HS 0303) and crustaceans (HS 0306), however, accounting for 73 and 13 percent of the total imported value, respectively. Large imports are likely destined for re-export with a strong combined export volume of fish/fillet (HS 0304) and prepared or packaged fish (HS 1604), at about 1.2 MMT, accounting for 51 percent of the total export volume.

Based on WTA, salmon import volume decreased sharply to 96,331 MT (down 18 percent) in the first ten months of 2008 as compared to the previous year. The total import value, however, stood at \$235 million, down by three percent over the same period in 2007. The average import price reached \$2.4 per kilogram in 2008 as compared to \$ 2.1 in the previous year. The increased price in part limited salmon imports in 2008. The United States, Japan, and Russia continue to be the three largest suppliers in 2008.

Russia is expected to continue to top the list of origins for China's aquatic product imports, which it has headed for the past consecutive seven years, distantly followed by the United States and Japan. Total imports from Russia are estimated to be \$1.3 billion in 2008, down from the previous year, however, accounting for 38 percent of China's total 2008 aquatic imports.

Qingdao and Dalian continue to be the two largest arrival ports for aquatic products, accounting for 85 percent of the total imports. Well-established facilities, including processing factories in Qingdao and Dalian, will likely solidify the two cities' status as the largest seafood import hubs in China in the foreseeable future.

#### **Aquatic trade with the United States is expected to grow**

Imports from the United States continued growing during the first ten months of 2008-with import value totaling \$470 million and expecting to reach \$500 million for the whole year (up eight percent over 2007). The United States has been the second largest supplier since 2004. In the first ten months of 2008, frozen fish remained the largest category, accounting for 79 percent of the total import value. Imports by species include plaice (\$141 million out of the total \$145 million for all flatfish) followed by salmon (\$97 million), cod (\$52 million), and mollusks (\$45 million). It is worth noting that salmon imports from the United States are expected to fall to \$100 million in 2008 from the \$116 million in the previous year. The reduced imports are attributable mainly to the increased price for raw fish which reduced processing the industry's profit margin. It is difficult to quantify the volume of salmon imported for domestic consumption, but salmon is becoming a staple dish among middle class consumers at home or dining out in Japanese restaurants or hotels in large cities including Beijing, Shanghai, Guangzhou, etc. Industry insiders believe China will become one of the world's largest salmon markets in the near future. Despite improved cold storage in supermarkets in large cities, the cold chain needs to be improved in order to shorten the

delivery time to end-users. China's demands for other high quality and natural seafood are also expected to grow steadily along with income growth and improved health awareness.

### **Fishmeal imports are forecast at 1.2 MMT in 2009**

Fishmeal imports in 2009 are forecast at 1.2 MMT, down from the estimated 1.3 MMT imports in 2008. Fishmeal imports in 2006 and 2007 remained relatively low at about 970,000 MT yearly mainly due to the extremely high fishmeal price and weak demand by the animal husbandry sector since late 2006. Feed industry sources reported that fishmeal is still regarded as the best animal protein source provided the price remains acceptable and reasonable. Other protein meals are added as substitutes when prices for fish meal are too high. Domestic fishmeal production continues to be low and expected to be less than 250,000 MT in 2008. Imports for 2009 are forecast at 1.2 MMT given the 2008 ending stocks are likely to be high. Peru remains the largest fishmeal supplier. Imports from the United States for 2007 and 2008 are expected to be similar to past years at approximately 70,000 MT.

### **Value-added aquatic product exports continue to increase**

China's exports of aquatic products for 2008 are expected to reach \$9.7 billion, up nine percent from the \$8.9 billion in the previous year. This growth rate is notably higher than the four percent realized in 2007. According to WTA, in the first ten months of 2008, the total aquatic export value was \$7.8 billion, up 10 percent as compared to the previous year, despite a smaller export volume at 2,244,000 MT as compared with the 2,259,000 MT for the same period in 2007. Fish fillet, prepared or packaged fish and caviar, the prepared crustaceans and mollusks have seen growth in value.

According to WTA, as of the end of October 2008, three major categories, namely Fish/Fillet (HS Code 0304), Prepared or Packaged Crustaceans and Mollusks (HS Code 1605), and Prepared or Packaged Fish and Caviar (HS Code 1604), continue to dominate, accounting for 79 percent of the total export value. Adding greater value to fish products has increasingly enhanced the industry. The trend is likely to continue and will be made possible through the advancement in technology and management, as the industry strives to meet changing of consumer demand.

Exports of various cultured species showed a different picture in the first ten months of 2008. The shrimp and prawn export value increased by 18 percent although the volume decreased by two percent as compared to the previous year. Exports to the United States reached \$203 billion, up significantly from the \$135 billion in the previous year. Other markets with high growth in export value are Malaysia and Canada, up 189 percent and 132 percent, respectively. Shrimp and prawn exports are forecast to maintain steady growth and destinations are likely to be more diversified in 2009. Increased export prices in 2008 also attributed in part to the export value increase. According to WTA, the average export price in the first ten months of 2008 was \$800 per metric ton higher than that of the previous year. Prepared and packaged shrimp and prawn continue to dominate, accounting for 83 percent of total shrimp and prawn exports in 2008. This trend will maintain in 2009 supported by strong consumer demand and China's commitment to continue to add value to its products.

In the first ten months of 2008, tilapia exports soared to \$573 million, exceeding the \$491 million in the full year of 2007. The export value of prepared and preserved tilapia accounted for 94 percent of the exports of all tilapia products. The strong growth of tilapia exports (in particular prepared and preserved filets) also indicated that the industry continued expansion and shifted to value added products. The United States remained the largest destination for China's tilapia products, accounting for 56 percent in export value and 52 percent in volume in 2008. Tilapia exports to three African countries including Nigeria, Benin, and Cote D'Ivoire reached 11,740 MT in the first ten months of 2008 from a total of

726 MT in the previous year. Exports to Russia and Ukraine also showed double digit growth in 2008.

The crawfish export value in 2008 is expected to be slightly lower than the \$150 million in 2007, mainly due to lower exports to the United States, the largest importer, although other markets have seen growth. In the first ten months of 2008, eel product exports plummeted to \$320 million from the \$509 million in the previous year. Exports to Japan, the largest buyer, fell to \$183 million from the \$399 million in 2007. MOA reported that the drop in eel products to Japan was a result of several Chinese origin food safety incidents recorded in 2008 that damaged consumer's confidence in Chinese food.

#### **Aquatic export destinations became more diversified**

It is expected that China's aquatic export value to 17 countries/regions will reach \$100 million for each in 2008. Japan continued to be the largest export destination, followed by the United States and South Korea. The United States is the largest destination for China's fish/fillet and tilapia products, accounting for 23 and 56 percent in value, respectively, in the first ten months of 2008. The United States is ranked as the second largest destination of China's prepared or packaged fish and caviar exports in value at \$951 million in the first ten months in 2008.

#### **More measures adopted to make aquatic food exports to the United States safer**

On November 19, 2008, the United States Department of Health and Human Service (HHS) announced the opening of FDA's first foreign office in Beijing, China. The other two FDA offices in Guangzhou and Shanghai (cities in mainland China) will also open in 2009. The FDA offices in China will include eight officials described as "inspectors and senior technical experts in foods, medicine and medical devices." Based on a HHS statement, FDA employees would inspect products and liaise with Chinese officials and groups. The United States also intends to help the Chinese government improve its regulatory systems for exports. The establishment of FDA offices in China will greatly enhance the speed and effectiveness of our regulatory cooperation and our efforts to protect consumers in both countries. This cooperation is based on a Memorandum of Agreement on Food and Feed Safety signed by HHS and AQSIQ (GAIN7888).

China's food safety faces new challenges despite great efforts made by China's regulators. In September 2008, more than 53,000 infants in China became sick after consuming infant formula containing melamine. Nearly 13,000 infants were hospitalized and at least four died of related illnesses involving the formation of kidney stones and other complications. As for the aquatic food, many export-oriented aquatic establishments are equipped with cutting edge machineries and testing devices. It is expected that the joint efforts of FDA (by the new FDA presence in China) and AQSIQ will better safeguard Chinese aquatic products destined to the United States. Ideally, unsafe aquatic products will be detained before they leave China's ports.

#### **Policy**

##### **China's policy favors smooth growth for aquatic production and exports**

China's fishery production policy remains unchanged generally. Aquatic production in 2007 and estimated production for 2008 indicate a slightly below average growth rate. China's rapid GDP growth will boost domestic demand for aquatic products. MOA continued to promote a more sustainable development model with rational resource utilization in 2008 through a nationwide plan to build environment-friendly and healthy aquaculture demonstration bases. Through the intensification of the enforcement of relevant laws and regulations and technical extension, the plan is aimed at promoting better use of resources, protecting the environment, producing safe products, and raising farmer income. Other

measures included technology extension and drug use supervision. The aquaculture development plan by region/province remains unchanged in general. Large aquatic producing provinces will continue to focus on their most competitive products. Export-oriented aquaculture production/processing will continue to be concentrated in coastal provinces.

Domestic aquatic catch is restricted. The "Zero Growth" policy for domestic wild aquatic catch is to be maintained although the overseas catch is encouraged. The two-month summer fishing moratorium in China's seawater continued in 2008, and the three-month spring fishing ban in the Yangtze River entered its sixth year. In an effort to protect and restore ecological balance, the state and provincial fishery departments conduct frequent releases of aquatic fingerlings to waters nationwide. The catch in other territorial seas is encouraged but the expected production will remain stable in general.

#### **Implementation of aquaculture licensing system advanced**

The implementation of an aquaculture licensing system continued in 2008. According to MOA, major aquatic producing counties completed the overall water resources development plans and 90 percent of aquaculture entities will be licensed by the end of 2008. The implementation of the licensing system nationwide is aimed at better regulation of the industry and enforcement of policies. As mentioned above, the HHS and AOSIQ agreement signed in December 2007 will require exporters to the United States to register with AOSIQ and agree to annual inspections to ensure their goods meet U.S. standards.

#### **The policy on aquatic processing trade remains unchanged**

China's government views the processing trade as an advantageous industry due to its role in generating new employment and producing rendered product that can be used as a feed ingredient for the feed industry. Basically, imports under "Processing Trade" will still be free of tariff and value added tax (VAT). Processed products, however, must be re-exported. Imports destined for China's domestic consumption are subject to tariff and VAT (CH5089). According to industry sources, the processing trade declined slightly, accounting for less than 40 percent of China's estimated \$10 billion aquatic exports in 2008. However, China's industry and official sources both claim that China is actively becoming the world's processing center for cod, mackerel, and herring. Industry sources note that the number of enterprises involved in "Processing Trade" is on the rise, especially in the large fishery provinces, Shandong and Liaoning. According to China's Ministry of Finance, enterprises engaged in primary processing of aquatic products and other agriculture commodities are entitled to a preferential income tax policy, however, no details have been published.

#### **Marketing--Healthy, Nutritious, and Safe Products**

In recent years, high-end aquatic product imports from overseas have become increasingly available in the China market. Fishery products from the United States have a reputation for superior quality, natural growing environment, sustainability, traceability, and versatile varieties. Caught from coast to coast, a large variety of U.S. seafood is available for export in comparison to the more limited supplies available from third country suppliers. The United States' high food safety standards have helped establish an image of high quality and safety even before the recent heightened interest in product safety relating China's food production.

Chinese consumers traditionally prefer low-value, live seafood, and fresh aquatic products. In much of inland China, such as Northwest and Northeast China, including the provinces of Inner Mongolia, Shaanxi, Shanxi, Henan, Xinjiang, and Tibet, fresh aquatic products are scarce due to geographic isolation, underdeveloped cold chain and distribution systems, transportation bottlenecks, and uneven weather conditions. In these more isolated regions, aquatic products in frozen, dried, cured, and other processed forms are more popular

because of their longer shelf life. In these regions, meat is the preferred animal protein because of traditional dietary habits and consumption patterns.

### **HRI food service sector remains as major end user**

In recent years, high-end seafood imports such as salmon, black sea bass, halibut, live lobsters and fresh oysters can be found in many mid-high end restaurants across China. The perceived superior texture and flavor of U.S. seafood compared to local substitutes continues to win the favor of many high-end chefs and fine dining establishment professionals.

While price is still one of the most significant factors influencing food purchasing decisions, it is no longer the primary criteria for China's increasingly health-conscious consumers and fine dining operators. With more food safety violations in China and increased industrial pollution, some consumers are increasingly reluctant to purchase local fishery products. While this is a challenge for seafood consumption in general, it also presents an opportunity for many U.S. seafood products.

The HRI food service sector mainly purchases high-end seafood and fishery products. Even in some coastal cities like Qingdao, Yantai, Tianjin, Dalian, Shanghai, and Guangzhou where local fishery products are abundant, imported products still receive strong customer support. Effective marketing and promotional activities such as chef demonstrations, training and seminars are effective tools for promoting U.S. fishery products in the HRI food service sector. Most of these activities provide focused education for food service professionals and emphasize the proper preparation, product handling, and application of various U.S. fishery products.

### **Middle class consumers look for quality products & health benefits**

Urban and middle class Chinese consumers have become increasingly aware of product origin, and many avoid consuming domestic freshwater fish and opt for imported products because of its nutrition, safety, and variety. Health consciousness, nutrition, and brand awareness also increasingly affect consumer perceptions and purchasing behavior. Some specific fishery products have benefited from medical research linking seafood consumption to good health. This is particularly true for deep sea fin fish, which often contain high levels of heart-healthy fatty acids such as Omega 3. Media coverage and lifestyle media campaigns related to these findings continues to play an important role in driving consumer demand for products such as fish oil in urban China. Market development activities focusing on these themes are effective tools for educating Chinese consumers about the quality and availability of U.S. fishery products.

### **Ready to cook, portion control is the trend**

The rapidly changing and increasingly modern, fast-paced lifestyles of many Chinese consumers, especially those under 35, means that these consumers often prefer to purchase value-added products in supermarket or hypermarket formats. Portion controlled, ready-to-cook, breaded, battered, frozen filleted, frozen cooked, and frozen raw seafood are increasingly well-positioned to meet changing consumer needs. These nutritious and easy-to-prepare products continue to grow in popularity. However, while these seafood products are ready made, it is advisable to provide clear preparation and cooking instructions. This is important because Chinese consumers traditionally consume fresh or live fishery products and are often not familiar with value-added product preparation. Marketing tools in the retail sector include in-store promotion, product sampling, recipe leaflets, and brochures.

### **Fishery products on the rise in QSR sector**

Seafood has also entered the fast food sector. Compared with the traditional meat and poultry options, fish or seafood items are becoming increasingly popular. KFC, as one of the top Quick Service Restaurant (QSR) giants in China, has focused on developing healthy menu

offerings since 2007 using deep-sea cod and Wild Alaskan Salmon nuggets. Imported fishery products are finding their way onto Chinese dining tables in different presentations and iterations.

### **Building Trust through Quality Products**

Stringent food safety procedures, advanced and controlled harvesting, processing, and cold chain logistics help to ensure the near fresh conditions of U.S. seafood exports. While China's cold chain facilities and logistics are still improving, they have a long way to go to meet evolving domestic requirements and international standards. Shellfish, such as scallops and oysters, from the United States often enjoy strong sales because domestic shellfish have a poor reputation because of heavy metal contamination. Sea cucumbers, live lobsters, and Dungeness crabs reportedly enjoy strong demand in the HRI food service sector despite their relatively high price due to their nutritional content and wild origins.

### **Competition, Country Origin, and Branding**

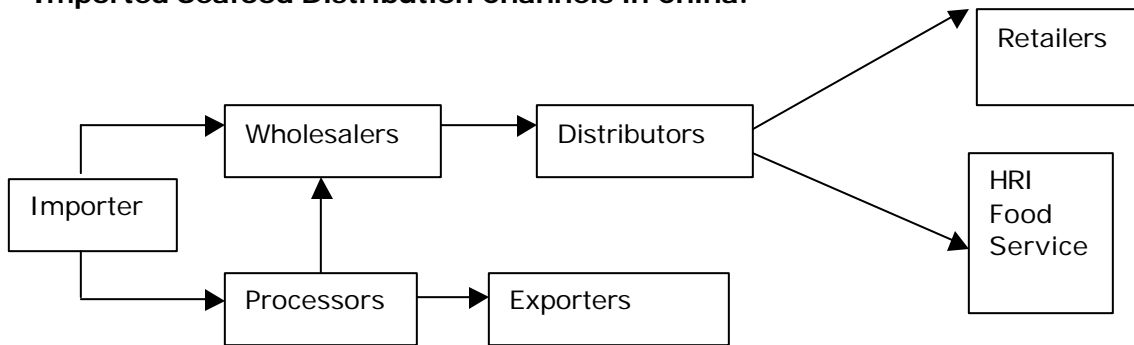
While demand for high-quality fishery products has expanded in China, competition has also intensified with a growing number of international suppliers entering the market. In this market, country of origin, much like brands in other markets, play a critical role. For example, Norwegian salmon has 70 percent more brand recognition than U.S. origin salmon. Products with established brand recognition and reputations for positive health benefits often enjoy strong sales in the food service and retail sector. By contrast, seafood products with little or no product origin recognition usually face a much steeper market development curve and forced to compete solely on price.

The recent 13<sup>th</sup> China Fisheries and Seafood Expo held in Qingdao grew by more than 10 percent over the previous year. During the Expo, more countries are represented in large country pavilions in an effort to draw in new customers every year. These countries include Norway, Canada, Chile, Korea, Spain, Peru, and the United Kingdom. The success of the Expo suggests that domestic and international interest is growing in the seafood and fishery products sector.

Under the current economic crisis, the fishery industry as well as trade between the United States and China will certainly be impacted in the short-term, especially the higher-priced items. However, Chinese importers are confident that the market will bounce back once the international financial situation stabilizes.

### **Prices**

In addition to competition from third country suppliers, domestic competition is also on the rise. Local products continue to gain market share due to improved quality, lower prices, and greater availability. Based on discussions with local traders, seafood distributors, and suppliers complain that due to the higher prices for imports, many retailers are hesitant to stock higher end seafood products in their stores because it usually requires a larger investment. On the other hand, black market sales are also one of the main barriers. There are processors who normally import raw materials for the purpose of processing, which is subject to much lower import tax and VAT. After processing, a portion of the raw material is always lost and considered waste. In some cases, however, processors sell the raw materials and report these raw materials lost. As a consequence, prices for these fishery products are 3-4 times lower than the properly imported products. This unfair competition continues to exist and hurt some of the legitimate importers. For more detailed information, please refer to Attaché report, CH8005.

**Imported Seafood Distribution Channels in China:****Best practices**

While superior quality, premium prices, traceability, and high levels of food safety are all characteristic of U.S. seafood and fishery products, exporters need to be aware of the relevant trade policies for exporting and selling in China. Investment in a long-term marketing strategy to differentiate products from domestic or other international competitors is important in this market. Potential market entrants need to conduct extensive desktop and preliminary research before determining if the market is appropriate for their products. Trademark registration and IPR protection is also strongly recommended for all U.S. product exports. Participating in the annual China Fisheries and Seafood Expo, the largest fishery expo in Asia, is a good way to test the water and establish initial face-to-face contact with importers and distributors. In addition, finding a suitable partner with compatible goals is important for long-term market development and sales success.



## Trade Tables

## Trade of Certain Aquatic Products (Volume: MT; Value: \$ Million)

## Imports by Category

HS Code		Jan-Dec/2006		Jan-Dec/2007		Jan-Oct 2008	
		Volume	Value	Volume	Value	Volume	Value
	<b>Total</b>	2,192,947	3,400	2,327,181	3,486	1,949,703	3,082
0302	Fish, Fresh	4,062	24	6,035	33	5,816	37
0303	Fish, Frozen	1,730,681	2,635	1,814,983	2,635	1,481,845	2,265
0304	Fish, Fillet	22,100	45	17,098	38	12,797	38
0305	Fish, Dried, Salted, Brined	8,415	31	9,762	34	10,085	28
0306	Crustaceans	97,155	292	76,746	300	67,297	260
0307	Mollusks & Other	315,049	336	382,031	387	347,381	397
1604	Prepared and Packaged Fish and Caviar	3,867	13	5,518	20	5,503	22
1605	Prepared and Packaged Crustaceans and Mollusks	11,618	24	15,008	39	18,979	35

## Exports by Category

HS Code		Jan-Dec/2006		Jan-Dec/2007		Jan-Oct/2008	
		Volume	Value	Volume	Value	Volume	Value
	<b>Total</b>	2,791,776	8,600	2,834,491	8,910	2,244,154	7,786
0302	Fish, Fresh	54,571	144	46,466	116	32,191	93
0303	Fish, Frozen	521,458	680	452,193	637	341,028	555
0304	Fish, Fillet	796,162	2,289	793,531	2,443	657,784	2,113
0305	Fish, Dried, Salted, Brined	53,855	223	56,920	239	48,225	222
0306	Crustaceans	117,062	398	103,967	368	68,028	283
0307	Mollusks and Other	294,079	651	277,855	616	196,331	508
1604	Prepared or Packaged Fish and Caviar	476,653	1,815	623,942	2,129	522,749	1,883
1605	Prepared or Packaged Crustaceans and Molluscs	477,936	2,400	479,617	2,362	377,818	2,129

Source: World Trade Atlas

**Aquatic Products Trade by Country of Origin (Value: \$ million)****Imports by Country of Origin**

<b>Country</b>	<b>Jan-Dec 2005</b>	<b>Jan-Dec 2006</b>	<b>Jan-Dec 2007</b>	<b>Jan-Oct 2008</b>
Russia	1,094	1,213	1,340	1,040
United States	343	409	463	470
Japan	171	235	209	130
Norway	156	160	173	144
Canada	171	174	163	163
Korea, South	110	78	142	122
Thailand	59	67	97	96
India	57	91	86	58
Netherlands	65	83	85	154
Peru	27	64	66	76
New Zealand	68	56	58	61
Taiwan	22	32	49	29
Indonesia	40	43	40	38
Korea, North	93	44	31	35
Chile	27	34	28	35
Other	401	402	456	431
<b>Total</b>	<b>2,904</b>	<b>3,184</b>	<b>3,487</b>	<b>3,082</b>

**Exports by Country of Destination**

<b>Country</b>	<b>Jan-Dec 2005</b>	<b>Jan-Dec 2006</b>	<b>Jan-Dec 2007</b>	<b>Jan-Oct 2008</b>
Japan	2,642	2,802	2,734	1,986
United States	1,259	1,738	1,729	1,541
Korea, South	880	993	973	759
Germany	277	360	384	399
Hong Kong	332	287	314	258
Russia	119	176	300	328
Spain	191	239	241	195
United Kingdom	136	212	228	216
Canada	153	186	211	196
Malaysia	133	177	185	257
Mexico	147	189	173	152
Taiwan	75	93	137	134
Belgium	89	116	130	103
Netherlands	87	111	120	127
Australia	72	103	111	81
France	55	94	102	100
Thailand	30	39	48	102
Other	506	686	790	853
<b>Total</b>	<b>7,183</b>	<b>8,601</b>	<b>8,909</b>	<b>7,787</b>

Source: World Trade Atlas

**Imports of Fish, Frozen by Country of Origin (Value: \$ million; Volume: MT)****(Value: in \$ million)**

<b>Country</b>	<b>Jan-Dec 2005</b>	<b>Jan-Dec 2006</b>	<b>Jan-Dec 2007</b>	<b>Jan-Oct 2008</b>
Russia	1,060	1,145	1,272	1,005
United States	295	339	402	372
Japan	140	206	177	100
Norway	134	133	138	109
Netherlands	64	82	83	152
India	38	68	68	45
Thailand	35	34	60	72
Canada	60	57	55	43
Korea, South	52	40	48	43
New Zealand	44	41	45	50
Chile	16	23	21	28
Germany	32	22	21	29
Other	231	227	246	218
<b>Total</b>	<b>2,200</b>	<b>2,418</b>	<b>2,635</b>	<b>2,265</b>

**Volume (in MT)**

<b>Country</b>	<b>Jan-Dec 2005</b>	<b>Jan-Dec 2006</b>	<b>Jan-Dec 2007</b>	<b>Jan-Oct 2008</b>
Russia	692,917	706,827	724,009	608,552
United States	175,723	190,633	222,906	182,552
Japan	95,801	149,979	133,374	70,919
Netherlands	87,893	108,016	112,170	111,704
India	57,803	114,174	105,633	56,961
Thailand	54,405	61,094	97,880	93,488
Norway	81,442	73,136	71,152	56,626
New Zealand	38,645	35,477	39,084	39,424
Canada	43,356	38,011	38,406	30,333
Korea, South	26,074	25,489	32,862	31,890
Indonesia	27,643	28,710	28,462	21,004
Germany	23,006	19,483	21,427	17,819
Iceland	23,501	20,848	20,588	14,275
Other	151,004	158,805	167,031	146,299
<b>Total</b>	<b>1,579,214</b>	<b>1,730,681</b>	<b>1,814,983</b>	<b>1,481,845</b>

Source: World Trade Atlas

**Imports of Flatfish by Country of Origin (Value: \$ million; Volume: MT)****(Value: in \$ million)**

<b>Country</b>	<b>Jan-Dec/05</b>	<b>Jan-Dec/06</b>	<b>Jan-Dec/07</b>	<b>Jan-Dec/08</b>
United States	105	112	131	145
Russia	70	61	50	25
Canada	17	15	15	12
Greenland	6	5	13	9
Korea, South	5	7	7	5
Norway	8	5	7	4
Other	32	50	45	47
<b>Total</b>	<b>242</b>	<b>255</b>	<b>267</b>	<b>248</b>

**(Volume: in MT)**

<b>Country</b>	<b>Jan-Dec/05</b>	<b>Jan-Dec/06</b>	<b>Jan-Dec/07</b>	<b>Jan-Dec/08</b>
United States	69,378	74,018	83,961	91,088
Russia	53,242	43,236	37,350	17,900
Canada	11,834	8,190	8,569	7,571
Greenland	3,895	3,543	7,351	4,737
Korea, South	3,134	4,714	3,568	3,097
Norway	4,208	2,277	2,667	1,939
Other	22,502	32,165	28,053	27,921
<b>Total</b>	<b>168,193</b>	<b>168,142</b>	<b>171,519</b>	<b>154,254</b>

Source: World Trade Atlas

**Imports of Cod by Country of Origin (Value: \$ million; Volume: MT)****(Value: in \$ million)**

<b>Country</b>	<b>Jan-Dec/05</b>	<b>Jan-Dec/06</b>	<b>Jan-Dec/07</b>	<b>Jan-Oct/08*</b>
Russia	748.0	649.8	667.7	441.9
United States	59.7	73.3	63.4	51.8
Japan	12.4	27.3	35.5	18.7
Norway	11.0	27.3	31.4	20.3
Netherlands	33.3	39.9	29.5	73.5
Korea, South	17.1	13.9	17.5	8.8
New Zealand	17.8	15.7	11.3	12.5
Denmark	2.5	1.7	8.7	5.8
Germany	13.3	7.3	6.4	10.7
Greenland	0.2	2.1	5.5	3.5
Other	38.9	31.2	16.5	12.2
<b>Total</b>	<b>954.1</b>	<b>889.5</b>	<b>893.3</b>	<b>659.6</b>

**(Volume: in MT)**

<b>Country</b>	<b>Jan-Dec/05</b>	<b>Jan-Dec/06</b>	<b>Jan-Dec/07</b>	<b>Jan-Oct/08*</b>
Russia	499,088	396,857	344,125	229,928
Netherlands	56,115	59,257	40,144	29,015
Japan	15,650	25,836	30,000	13,549
United States	32,643	34,810	25,442	19,005
New Zealand	15,510	13,301	11,865	9,556
Korea, South	12,339	11,833	11,391	4,634
Norway	4,374	10,793	10,781	6,476
Germany	8,888	5,873	6,448	3,410
Canada	1,503	3,491	3,451	1,656
Denmark	1,036	616	2,812	2,326
Other	22,645	29,610	7,260	8,007
<b>Total</b>	<b>669,791</b>	<b>592,275</b>	<b>493,720</b>	<b>327,560</b>

Source: World Trade Atlas

**Imports of Plaice by Country of Origin (Value: \$ million; Volume: MT)****(Value: in \$ million)**

<b>Country</b>	<b>Jan-Dec/05</b>	<b>Jan-Dec/06</b>	<b>Jan-Dec/07</b>	<b>Jan-Dec/08</b>
United States	98	109	127	141
Russia	57	47	38	17
Canada	10	7	4	3
Spain	3	1	2	2
Korea, South	3	5	2	2
Norway	2	1	2	0
China	0	2	1	1
Greenland	1	1	1	2
Other	10	11	5	3
<b>Total</b>	<b>184</b>	<b>183</b>	<b>182</b>	<b>171</b>

**(Volume: in MT)**

<b>Country</b>	<b>Jan-Dec/05</b>	<b>Jan-Dec/06</b>	<b>Jan-Dec/07</b>	<b>Jan-Dec/08</b>
United States	67,524	72,737	82,173	89,535
Russia	47,397	37,805	32,596	14,668
Canada	8,236	4,603	3,504	2,789
China	1,555	4,439	1,674	1,674
Spain	2,768	758	1,638	1,352
Korea, South	2,511	4,137	1,500	1,813
Other	8,011	7,613	5,765	3,667
<b>Total</b>	<b>138,002</b>	<b>132,093</b>	<b>128,850</b>	<b>115,498</b>

Source: World Trade Atlas

**Imports of Salmon by Country of Origin (Value: \$ million; Volume: MT)****(Value: in \$ million)**

<b>Country</b>	<b>Jan-Dec/2005</b>	<b>Jan-Dec/2006</b>	<b>Jan-Dec/2007</b>	<b>Jan-Oct/2008</b>
United States	45	78	116	97
Japan	87	115	81	49
Russia	69	96	43	35
Norway	20	25	37	35
Chile	5	12	9	16
Canada	9	8	4	1
Denmark	1	0	0	1
Other	1	2	2	2
<b>Total</b>	<b>239</b>	<b>337</b>	<b>292</b>	<b>235</b>

**(Volume: in MT)**

<b>Country</b>	<b>Jan-Dec/2005</b>	<b>Jan-Dec/2006</b>	<b>Jan-Dec/2007</b>	<b>Jan-Oct/2008</b>
United States	32,437	42,045	59,898	40,026
Japan	45,913	54,645	43,435	25,691
Russia	41,276	49,900	22,105	17,914
Norway	3,532	4,443	7,214	5,370
Chile	2,881	5,617	4,321	5,041
Other	6,826	6,079	3,827	2,289
<b>Total</b>	<b>132,865</b>	<b>162,730</b>	<b>140,799</b>	<b>96,331</b>

Source: World Trade Atlas

**Imports of Crustaceans by Country of Origin (Value: \$ million; Volume: MT)****(Value: in \$ Million)**

<b>Country</b>	<b>Jan-Dec 2005</b>	<b>Jan-Dec 2006</b>	<b>Jan-Dec 2007</b>	<b>Jan-Oct 2008</b>
Canada	94	97	85	92
Russia	20	38	45	19
Thailand	13	20	22	15
Greenland	23	22	19	10
Japan	17	15	16	8
India	14	17	12	6
United States	11	9	11	27
Malaysia	5	6	10	11
Indonesia	12	13	10	17
Australia	15	9	10	8
Other	63	46	60	46
<b>Total</b>	<b>290</b>	<b>292</b>	<b>300</b>	<b>260</b>

**(Volume: in MT)**

<b>Country</b>	<b>Jan-Dec 2005</b>	<b>Jan-Dec 2006</b>	<b>Jan-Dec 2007</b>	<b>Jan-Oct 2008</b>
Canada	38,372	37,084	26,695	23,155
Russia	5,894	12,681	15,059	6,534
Greenland	10,793	10,922	9,229	4,615
Thailand	4,212	4,449	4,465	3,358
Japan	4,428	4,473	4,263	2,147
United States	2,568	2,522	3,758	5,797
India	3,513	4,222	2,689	1,232
Denmark	4,760	3,431	2,616	1,593
United Kingdom	764	1,240	2,133	1,707
Indonesia	3,224	2,671	2,096	2,387
Myanmar	523	496	2,040	3,522
Other	14,755	12,963	14,307	11,250
<b>Total</b>	<b>93,805</b>	<b>97,155</b>	<b>89,351</b>	<b>67,297</b>

Source: World Trade Atlas



**Imports of Mollusks and Other by Country of Origin (Value: \$ million; Volume: MT)****(Value: in \$ Million)**

Country	Jan-Dec 2005	Jan-Dec 2006	Jan-Dec 2007	Jan-Oct 2008
Japan	226	208	204	145
Korea, South	142	173	153	135
United States	96	111	100	75
Taiwan	13	18	21	16
Australia	28	26	21	18
Hong Kong	25	23	20	14
Spain	24	14	14	13
Malaysia	9	10	11	12
Italy	4	8	8	6
Canada	10	13	8	8
Egypt	0	2	3	9
Other	39	45	54	57
Total	616	651	616	508

**(Volume: in MT)**

Country	Jan-Dec 2005	Jan-Dec 2006	Jan-Dec 2007	Jan-Oct 2008
Korea, South	87,493	107,814	94,536	68,502
Japan	80,005	76,003	71,700	39,939
United States	24,341	30,167	24,718	19,176
Taiwan	16,124	19,531	18,876	11,281
Hong Kong	14,294	11,995	9,272	5,069
Australia	6,392	6,923	7,074	5,045
Spain	9,077	6,997	5,828	4,737
Malaysia	5,158	4,117	4,371	4,348
Russia	497	815	3,055	2,651
Other	21,584	29,718	38,425	35,584
Total	264,966	294,079	277,855	196,331

Source: World Trade Atlas

**Exports of Fish Fillet by Destination (Value: \$ million)**

Country	Jan-Dec 2005	Jan-Dec 2006	Jan-Dec 2007	Jan-Oct 2008
United States	624	645	649	494
Japan	423	446	450	350
Germany	265	340	357	381
United Kingdom	115	183	183	166
Canada	88	107	118	84
Netherlands	71	88	92	80
France	40	72	78	80
Spain	24	47	69	70
Russia	18	39	48	51
Belgium	27	33	47	46
Other	227	290	352	310
Total	1,924	2,289	2,443	2,113

**Exports of Prepared and Packaged Fish and Caviar by Country (in \$ million)**

Country	Jan-Dec 2005	Jan-Dec 2006	Jan-Dec 2007	Jan-Oct 2008
Japan	1,356	1,466	1,425	980
United States	708	947	1,081	951
Germany	267	348	370	388
Russia	52	108	209	223
United Kingdom	117	187	189	176
Korea, South	117	121	148	146
Canada	91	113	127	93
Netherlands	76	95	102	87
Spain	33	69	99	84
Hong Kong	91	73	98	74
Mexico	25	64	92	98
Other	323	513	633	696
Total	3,257	4,104	4,573	3,996

Source: World Trade Atlas

**Exports of Prepared and Preserved Crustacean and Mollusks by Destination (Value: \$ million)**

Country	Jan-Dec 2005	Jan-Dec 2006	Jan-Dec 2007	Jan-Oct 2008
Japan	657	765	779	594
United States	323	550	454	455
Korea, South	108	168	195	140
Hong Kong	115	100	125	111
Malaysia	78	92	118	196
Russia	55	56	78	91
Mexico	102	111	77	51
Australia	22	59	71	46
Belgium	48	72	60	35
Canada	28	39	59	79
Other	310	387	347	331
Total	1,847	2,400	2,362	2,129

**Exports of Prepared and Preserved Mollusks by Destination (Value: \$ million)**

Country	Jan-Dec/2005	Jan-Dec/2006	Jan-Dec/2007	Jan-Oct/2008
Japan	423	441	422	338
United States	94	102	96	79
Korea, South	56	88	80	65
Russia	51	52	65	59
Hong Kong	16	19	20	15
Korea, North	2	4	16	14
Malaysia	11	18	14	11
Taiwan	3	2	13	7
Ukraine	3	9	13	12
Canada	9	11	13	11
Other	53	45	51	41
Total	719	792	803	651

Source: World Trade Atlas

**Exports of Shrimps and Prawns by Destination (Value: \$ million; Volume: MT)****(Value: in \$ million)**

<b>Country</b>	<b>Jan-Dec 2005</b>	<b>Jan-Dec 2006</b>	<b>Jan-Dec 2007</b>	<b>Jan-Oct 2008</b>
Japan	248	263	278	196
United States	145	309	205	203
Hong Kong	119	102	111	70
Korea, South	73	94	99	54
Malaysia	68	73	98	190
Spain	104	118	95	86
Mexico	112	110	69	46
Australia	25	56	66	38
Taiwan	20	30	41	21
Canada	23	24	41	65
United Kingdom	7	10	20	18
Russia	2	2	11	27
Other	142	146	140	117
<b>Total</b>	<b>1,087</b>	<b>1,338</b>	<b>1,275</b>	<b>1,129</b>

**(Volume: in MT)**

<b>Country</b>	<b>Jan-Dec 2005</b>	<b>Jan-Dec 2006</b>	<b>Jan-Dec 2007</b>	<b>Jan-Oct 2008</b>
Japan	36,855	41,142	49,190	31,161
Korea, South	30,482	39,142	38,846	18,372
United States	28,967	56,044	36,225	32,421
Spain	26,644	28,339	25,063	21,369
Hong Kong	24,537	20,080	18,923	10,274
Malaysia	11,168	11,880	16,428	27,196
Mexico	17,780	17,247	11,553	8,912
Australia	4,887	10,441	11,292	5,970
Taiwan	8,428	10,122	11,116	4,257
Canada	4,240	4,314	6,539	8,912
Russia	173	264	2,388	5,546
Other	28,927	30,894	31,157	24,106
<b>Total</b>	<b>223,087</b>	<b>269,908</b>	<b>258,721</b>	<b>198,496</b>

Source: World Trade Atlas

**Exports of Shrimps and Prawns by Category (Value: \$ Million; Volume: MT)****(Value: in \$ million)**

	<b>Jan-Dec 2005</b>	<b>Jan-Dec 2006</b>	<b>Jan-Oct 2007</b>	<b>Jan-Oct 2008</b>
Aquatic Shrimp & Prawn	1,087	1,338	1,275	1,129
Shrimps & prawns, inc in shell, frozen	327	187	182	183
Shrimps & prawns, inc in live, Fr/Ch/Salted/Dried/In Brine	33	35	21	9
Shrimps & prawns, prepared or preserved	727	1,115	1,072	937

**(Volume: in MT)**

	<b>Jan-Dec 2005</b>	<b>Jan- Dec2006</b>	<b>Jan-Oct 2007</b>	<b>Jan-Oct 2008</b>
Aquatic Shrimp & Prawn	223,087	269,908	258,721	198,496
Shrimps & prawns, inc in shell, frozen	72,293	41,986	49,638	42,773
Shrimps & prawns, inc in live, Fr/Ch/Salted/Dried/In Brine	21,870	27,279	11,977	4,375
Shrimps & prawns, prepared or preserved	128,924	200,643	197,105	151,348

Source: World Trade Atlas

**Exports of Crawfish by Destinations (Value: \$ million)**

<b>Country</b>	<b>Jan-Dec/2005</b>	<b>Jan-Dec/06</b>	<b>Jan-Dec/2007</b>	<b>Jan-Oct/2008</b>
United States	29	60	51	22
Belgium	32	48	41	18
Sweden	19	19	20	20
Denmark	24	31	15	27
United Kingdom	6	6	8	10
Germany	4	3	4	3
Other	9	9	11	35
<b>Total</b>	<b>125</b>	<b>175</b>	<b>150</b>	<b>135</b>

**Exports of Eel Products by Destinations (Value: \$ million)**

<b>Country</b>	<b>Jan-Dec/2005</b>	<b>Jan-Dec/2006</b>	<b>Jan-Dec/2007</b>	<b>Jan-Oct/2008</b>
Japan	505.4	498.5	442.2	182.5
Hong Kong	40.5	8.1	31.4	24.6
United States	17.0	26.6	28.9	35.7
Russia	3.0	8.8	20.9	23.2
Poland	4.5	1.4	7.9	5.2
Korea, South	6.8	2.3	7.4	10.2
Singapore	2.4	2.2	6.0	6.1
Other	9.0	48.1	38.5	32.2
<b>Total</b>	<b>588.6</b>	<b>595.9</b>	<b>583.2</b>	<b>319.6</b>

Source: World Trade Atlas

**Exports of All Tilapia Products by Destination (Value: \$ million)**

Country	Jan-Dec 2005	Jan-Dec 2006	Jan-Dec 2007	Jan-Oct 2008
United States	184	252	301	323
Mexico	29	59	75	90
Russia	0	12	46	57
Israel	3	9	9	11
Poland	0	2	6	8
Netherlands	0	2	6	6
Belgium	3	4	5	6
Ukraine	0	0	3	6
Cote d'Ivoire	0	0	2	7
Nigeria	0	0	0	16
Other	14	27	40	41
Total	232	369	491	573

**Exports of Tilapia/Prepared or Preserved by Destination (Value: \$ million)**

Country	Jan-Dec 2005	Jan-Dec 2006	Jan-Dec 2007	Jan-Oct 2008
United States	23	161	290	318
Mexico	2	37	72	89
Russia	0	6	44	56
Israel	0	6	8	11
Poland	0	2	5	6
Netherlands	0	1	4	3
Puerto Rico (U.S.)	0	3	3	4
Ukraine	0	0	2	6
Cote d'Ivoire	0	0	1	4
Nigeria	0	0	0	14
Other	4	16	30	27
Total	28	232	461	539

**Exports of Tilapia/Fillet by Destination (Value: \$ million)**

Country	Jan-Dec 2004	Jan-Dec 2005	Jan-Dec 2006	Jan-Oct 2008
Germany	2	1	3	4
United States	133	65	3	0
Poland	0	1	1	3
Russia	0	5	1	0
Belgium	2	1	1	4
Spain	0	0	1	2
Netherlands	0	0	1	3
Other	26	18	4	3
Total	163	92	14	18

Source: World Trade Atlas

**Exports of Tilapia/Fillet by Destination (Volume: MT)**

Country	Jan-Dec 2005	Jan-Dec 2006	Jan-Dec 2007	Jan-Oct* 2008
Germany	619	376	936	965
United States	43,357	21,398	824	42
Russia	22	2,246	546	68
Poland	21	268	533	809
Belgium	512	279	364	773
Netherlands	18	83	252	639
Spain	0	0	239	506
Mexico	6,578	4,671	142	84
Other	2,367	1,913	1,315	671
Total	53,494	31,233	5,151	4,556

**Exports of Tilapia/Prepared and Preserved by Destination (Volume: MT)**

Country	Jan-Dec 2005	Jan-Dec 2006	Jan-Dec 2007	Jan-Oct* 2008
United States	10,608	58,294	113,647	88,225
Mexico	1,509	18,675	37,142	30,639
Russia	0	2,513	18,596	16,886
Israel	257	2,375	3,480	3,257
Netherlands	106	535	2,194	1,128
Poland	52	622	1,969	1,668
Hong Kong	190	715	1,382	249
Puerto Rico (U.S.)	20	953	1,270	1,097
Cote d'Ivoire	0	0	1,219	2,771
France	21	62	1,087	739
United Arab Emirates	364	240	1,068	858
Germany	53	1,356	1,060	260
Belgium	437	812	1,043	683
Zambia	0	250	1,023	939
Ukraine	0	31	873	1,631
Kuwait	0	221	870	322
Ghana	0	74	731	956
Angola	220	74	626	809
Belarus	0	0	471	801
Benin	0	0	338	1,266
Nigeria	0	0	117	7,706
Namibia	0	0	70	731
Other	657	3,054	5,741	4,418
Total	14,494	90,855	196,017	168,040

Source: World Trade Atlas