British Columbia Seafood Industry

YEAR IN REVIEW 2018

CANADIAN AGRICULTURAL PARTNERSHIP

BRITISH COLUMBIA

Canada

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A message from the Minister of Agriculture

It is my pleasure to present the Ministry of Agriculture's 2018 British Columbia Seafood Year in Review.

We have so much to be proud of in British Columbia. In 2018, we reached a major milestone as the B.C. agriculture, seafood and food processing sectors reached revenues of $15 billion – the highest ever! The number of overall employees across the entire sector also increased to a 10-year high, to more than 63,400. The seafood sector provides jobs for thousands of British Columbians, many of whom work in remote, coastal communities. They are amazing people providing us with safe, reliable and top-quality seafood products.

Around the globe, consumers are reaching for B.C. seafood because of its taste, food safety, traceability and sustainability. In 2018, B.C. exported about $1.4 billion of seafood products, up 57% compared to just five years ago.

The B.C. seafood sector is diverse with more than 100 species of commercial fish, shellfish and marine plants to choose from in our oceans and fresh waters. And we are continuing to support our tasty and sustainably-produced B.C. seafood locally through the Buy BC program as well as in other markets around the world.

The B.C. government introduced a coast-wide aquaculture policy with rigorous new requirements to protect wild salmon and provided $5M in support to the Pacific Salmon Foundation to help grass roots organizations and their communities protect this important species and healthy fisheries for the next generations of British Columbians.

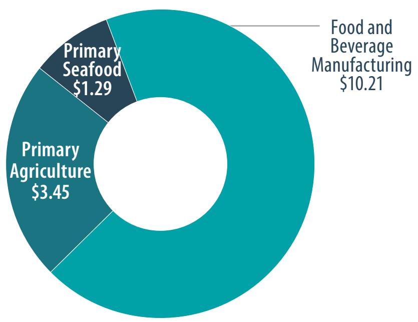
We have also partnered with the federal government to help restore salmon habitats through the British Columbia Salmon Restoration and Innovation Fund. This $143 million cost-shared fund focuses on salmon habitat protection and restoration and ensuring the B.C. seafood sector is positioned for long-term environmental and economic sustainability.

As you can see, there is a lot of work being done planning for the future and that includes supporting the next generation. We are proud to support the annual B.C. Young Fishermen's Gathering which helps people entering or building their career in the provincial fisheries sector make meaningful connections and develop new skills. As Minister of Agriculture, I am optimistic about the future and will keep working hard to ensure the B.C. seafood sector thrives.

HONOURABLE LANA POPHAM
Minister of Agriculture

> **"Around the globe, consumers are reaching for B.C. seafood because of its taste, food safety, traceability and sustainability."**

FIGURE 1: *2018 B.C. Agriculture Food and Beverage Processing & Seafood Revenues ($ billions)*



B.C.'s Agriculture Food and Beverage Processing and Seafood Sector

B.C.'s agriculture food and beverage processing, and seafood (aquaculture and wild commercial fisheries) sector generated a record total of $14.95 billion in combined gross revenues in 2018 (Figure 1), and exported $4.5 billion worth of products to 149 international markets.

This document focuses on the B.C. seafood sector. The provincial agriculture and agriculture food and beverage processing sectors are profiled in the *B.C. Agriculture and Food Year in Review*.

Comparisons made throughout this document are between the current year (2018) and the previous year (2017) unless otherwise stated.

British Columbia Seafood Sector Highlights

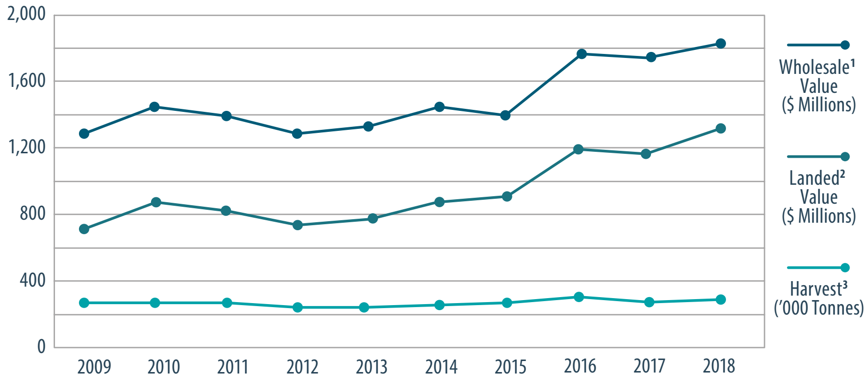
Over 140 seafood species are harvested commercially from B.C.'s marine and fresh waters. In B.C., the primary seafood sector includes both wild commercial fisheries and aquaculture, and the seafood processing sector which is a component of food manufacturing.

In 2018, provincial production from wild and farmed harvests totalled 294,300 tonnes with a landed value of $1.291 billion (Figure 2). The wild harvest of 196,300 tonnes was worth $476.4 million to the fishers and the aquaculture harvest generated a total farm gate value of $814.6 million from 98,000 tonnes of production. While the bulk of the provincial seafood harvest was routed for value-added processing, 131.8 tonnes of seafood worth $0.96 million was purchased by consumers directly from commercial fishers in 2018.

B.C. seafood processors produced a total of 499 seafood commodities with a combined wholesale value of $1.814 billion. A total value of $1.4 billion seafood products was shipped to 78 international markets in 2018.

The harvesting and processing sectors both provide jobs and economic opportunities for coastal communities throughout the province with a history of successful partnerships with many First Nations.

FIGURE 2: *B.C. Seafood Production 2009-2018*



1 **Wholesale Value:** The value of the fish after processing. All of the British Columbia harvest is included in the wholesale value as well as any fish imported from outside B.C. that underwent significant processing within the province.

2 **Landed Value:** The price paid to commercial fishers and aquaculturists for the whole fish. In aquaculture, this is also referred to as farm gate value.

3 **Harvest:** The round (whole) weight of the fish harvested from British Columbia wild commercial fisheries and aquaculture operations. One tonne equals 2,204.6 pounds.

British Columbia Seafood Production 2016 – 2018

		HARVEST ('000 Tonnes)				LANDED VALUE ($ Millions)				WHOLESALE VALUE ($ Millions)[1]			
		2016	2017	2018	% CHANGE 17/18	2016	2017	2018	% CHANGE 17/18	2016	2017	2018	% CHANGE 17/18
SALMON	Chinook	1.7	1.2	1.1	-8.3	21.5	17.1	15.8	-7.6	26.6	26.5	23.3	-12.1
	Chum	15.9	7.0	4.1	-41.4	30.2	21.9	12.7	-42.0	54.4	43.9	26.5	-39.6
	Coho	1.0	1.3	0.6	-53.8	5.1	8.4	4.3	-48.8	28.6	24.2	27.3	12.8
	Pink	3.5	3.7	0.6	-83.8	2.8	3.3	0.6	-81.8	13.6	12.8	4.8	-62.5
	Sockeye	2.6	0.5	11.4	2,180.0	18.3	4.6	78.3	1,602.2	85.7	90.7	151.7	67.3
	Wild Salmon[2]	**24.7**	**13.7**	**17.8**	**29.9**	**77.9**	**55.3**	**111.7**	**102.0**	**212.4**	**200.2**	**235.8**	**17.8**
	Atlantic	90.5	83.1	84.5	1.7	713.1	694.9	737.5	6.1	758.4	727.4	771.6	6.1
	Pacific[3]	2.3	2.6	2.6	0.0	30.2	33.7	35.0	3.9	39.0	44.4	47.1	6.1
	Farmed Salmon	**92.8**	**85.7**	**87.1**	**1.6**	**743.3**	**728.6**	**772.5**	**6.0**	**797.4**	**771.8**	**818.7**	**6.1**
	SALMON	**117.5**	**99.4**	**104.9**	**5.5**	**821.2**	**783.9**	**884.2**	**12.8**	**1009.8**	**972.0**	**1054.5**	**8.5**
HERRING	Food, Bait and Other	7.6	7.4	6.5	-12.2	4.5	4.6	3.3	-28.3	8.8	8.0	7.5	-6.3
	Roe Herring	16.1	20.4	13.6	-33.3	13.0	17.3	14.5	-16.2	38.9	51.2	37.0	-27.7
	Spawn on Kelp[4]	0.19	0.24	0.15	-37.5	5.0	6.5	3.9	-40.0	5.7	7.5	4.5	-40.0
	HERRING	**23.9**	**28.0**	**20.3**	**-27.8**	**22.5**	**28.4**	**21.7**	**-23.6**	**53.4**	**66.7**	**49.0**	**-26.5**
GROUNDFISH	Arrowtooth Flounders	11.0	10.1	9.5	-5.9	3.2	10.0	9.0	-10.0	14.7	19.9	18.0	-9.5
	Dogfish	0.2	0.1	0.2	100.0	0.1	0.1	0.1	0.0	0.5	0.3	0.2	-33.3
	Hake	78.3	85.0	102.2	20.2	18.3	19.3	26.4	36.8	70.0	80.4	88.7	10.3
	Halibut	3.7	3.8	3.3	-13.2	58.3	58.9	44.1	-25.1	94.6	72.8	63.2	-13.2
	Lingcod	1.3	1.3	1.1	-15.4	6.8	8.8	7.5	-14.8	12.1	10.7	10.1	-5.6
	Pacific Cod	0.9	0.6	0.3	-50.0	2.0	1.0	0.5	-50.0	5.0	5.1	4.5	-11.8
	Pollock	2.2	3.4	3.4	0.0	1.1	1.5	1.5	0.0	5.0	8.4	6.3	-25.0
	Rockfish	16.7	16.8	15.8	-6.0	27.6	24.1	22.1	-8.3	51.6	52.8	34.5	-34.7
	Sablefish	1.9	1.9	2.3	21.1	27.6	29.3	34.6	18.1	35.0	33.7	37.2	10.4
	Skates	0.5	0.4	0.3	-25.0	0.9	0.6	0.4	-33.3	1.3	3.4	0.6	-82.4
	Soles	3.0	3.1	3.1	0.0	3.8	4.8	3.9	-18.8	9.2	8.8	8.9	1.1
	Other[5]	0.5	0.1	0.1	0.0	2.0	0.4	0.3	-25.0	15.3	14.7	12.3	-16.3
	GROUNDFISH[1]	**120.2**	**126.6**	**141.6**	**11.8**	**151.7**	**158.8**	**150.4**	**-5.3**	**314.3**	**311.0**	**284.5**	**-8.5**

1 Wholesale values include the value of imported seafood. In addition, the wholesale value of wild salmon and groundfish includes the value of offal, meal, and oil that cannot be identified by species.

2 Wild salmon harvests and values include those for steelhead, from aboriginal commercial fisheries, and from the Stikine and Taku Rivers.

3 Pacific farmed salmon includes chinook, coho, sockeye, and steelhead.

4 The herring spawn-on-kelp harvest is not of whole herring, but herring eggs that have adhered to blades of kelp after the herring have spawned.

5 "Other" includes flounders and other groundfish, including groundfish meal and oil from offal.

		HARVEST ('000 Tonnes)				LANDED VALUE ($ Millions)				WHOLESALE VALUE ($ Millions)[1]			
		2016	2017	2018	% CHANGE 17/18	2016	2017	2018	% CHANGE 17/18	2016	2017	2018	% CHANGE 17/18
SHELLFISH	Clams	0.4	0.5	0.4	-20.0	1.4	2.0	1.5	-25.0	8.3	8.0	13.3	66.3
	Crabs	3.4	3.8	4.6	21.1	44.5	47.7	63.8	33.8	82.7	87.8	113.6	29.4
	Geoducks	1.1	1.4	1.4	0.0	32.8	43.4	50.1	15.4	38.7	51.2	55.5	8.4
	Prawns	1.2	1.2	1.6	33.3	21.4	25.6	41.9	63.7	38.6	44.1	58.1	31.7
	Scallops	0.01	0.01	0.01	0.0	0.1	0.1	0.1	0.0	2.0	2.1	3.9	85.7
	Sea Cucumbers	1.6	1.7	1.7	0.0	8.4	9.4	8.9	-5.3	9.3	12.1	12.4	2.5
	Sea Urchins: Red	3.3	2.9	3.0	3.4	7.0	6.8	7.0	2.9	17.6	15.2	19.1	25.7
	Sea Urchins: Green	0.22	0.21	0.23	9.5	1.1	1.1	1.1	0.0	2.5	2.1	3.2	52.4
	Shrimp	3.5	0.3	0.4	33.3	7.8	1.9	2.2	15.8	16.3	5.7	5.2	-8.8
	Other[6]	0.3	0.1	0.1	0.0	0.3	0.2	0.2	0.0	7.5	9.0	8.0	-11.1
	Wild Shellfish	**15.0**	**12.1**	**13.4**	**10.9**	**124.8**	**138.2**	**176.8**	**27.9**	**223.5**	**237.3**	**292.3**	**23.2**
	Geoducks and Other Clams	1.0	1.3	1.2	-7.7	5.9	7.3	6.6	-9.6	13.9	13.6	11.1	-18.4
	Mussels & Other[7]	0.7	0.3	0.6	100.0	3.5	1.7	3.1	82.4	5.9	10.6	5.4	-49.1
	Oysters	9.3	8.3	7.2	-13.3	15.3	14.7	13.2	-10.2	31.4	28.5	25.7	-9.8
	Farmed Shellfish	**11.0**	**9.9**	**9.0**	**-9.1**	**24.7**	**23.7**	**22.9**	**-3.4**	**51.2**	**52.7**	**42.2**	**-19.9**
	SHELLFISH	**26.0**	**22.0**	**22.4**	**1.9**	**149.5**	**161.9**	**199.7**	**23.3**	**274.7**	**290.0**	**334.5**	**15.3**
OTHER	Tuna	2.8	1.8	2.7	50.0	20.4	15.7	14.3	-8.9	66.6	53.5	46.1	-13.8
	Other Wild[8]	0.3	0.7	0.5	-28.6	1.5	1.5	1.5	0.0	7.1	7.5	6.1	-18.7
	Other Farmed[9]	1.7	1.6	1.9	18.8	13.4	17.8	19.2	7.9	38.3	40	39.2	-2.0
	OTHER	**4.8**	**4.1**	**5.1**	**24.4**	**35.3**	**35.0**	**35.0**	**0.0**	**112.0**	**101.0**	**91.4**	**-9.5**
	GRAND TOTAL B.C.	**292.4**	**280.2**	**294.3**	**5.0**	**1180.2**	**1,168.0**	**1,291.0**	**10.5**	**1,764.2**	**1,740.7**	**1,813.9**	**4.2**

1 Wholesale values include the value of imported seafood. In addition, the wholesale value of wild salmon and groundfish includes the value of meal and oil from offal which can not be identified by species.

6 "Other" includes octopuses, squid, krill, mysid shrimp, gooseneck barnacles, and other shellfish.

7 "Mussels & Other" includes scallops and crayfish.

8 "Other Wild" includes mackerel, sea vegetables, seaweeds, kelp, and other finfish.

9 "Other Farmed" includes freshwater trout, tilapia, barramundi, sturgeon, sablefish, Arctic char, shrimp, microalgae, kelp and seaweeds

B.C.'s Seafood Sector Performance

IN 2018, B.C. SEAFOOD REACHED A NEW HIGH IN LANDED VALUE.

HARVEST

In 2018, B.C.'s total seafood production increased five per cent to 294,300 tonnes. Wild salmon led the increase, rising 30 per cent to 17,800 tonnes, followed by other species and groundfish, rising more than 24 per cent to 5,100 tonnes and almost 12 per cent to 141,600 tonnes respectively (Figure 3). Production grew by approximately 11 per cent to 13,400 tonnes for wild shellfish and 1.6% per cent to 87,100 tonnes for farmed salmon. Major declines in harvest were seen in herring (down 28 per cent to 20,300 tonnes) and farmed shellfish (dropped nine per cent to 9,000 tonnes).

LANDED VALUE

B.C.'s seafood operations collectively attained a landed value of $1.291 billion in 2018 (up 11 per cent). Large increases occurred in wild salmon (up 102 per cent to $111.7 million, Figure 4) and wild shellfish (up 28 per cent to $176.8 million). Farmed salmon saw a less significant increase of six per cent to $772.5 million. Landed value for other species remained unchanged over 2017 levels but fell substantially in herring (down 24 per cent to $21.7 million). Decline was moderate for groundfish (down five per cent to $150.4 million) and farmed shellfish (down three per cent to $22.9 million).

WHOLESALE VALUE

The total wholesale value of processed B.C. seafood increased slightly by four per cent to $1.814 billion in 2018. A substantial increase was observed in wild shellfish (up 23 per cent to $292.3 million, Figure 5) with lesser increases recorded in wild salmon (up 18 per cent to $235.8 million) and farmed salmon (up six per cent to $818.7 million). Drops in wholesale value occurred in herring (down 27 per cent to $49 million), farmed shellfish (down 20 per cent to $42.2 million), groundfish (down nine per cent to $284.5 million) and other species (down 10 per cent to $91.4 million).

FIGURE 3: *B.C. Seafood Harvest ('000 Tonnes)*

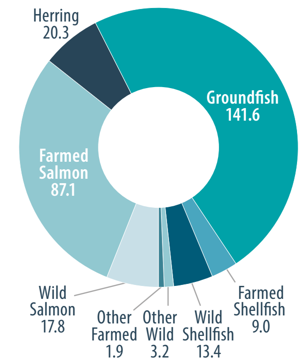


FIGURE 4: *B.C. Seafood Landed Value ($ Millions)*

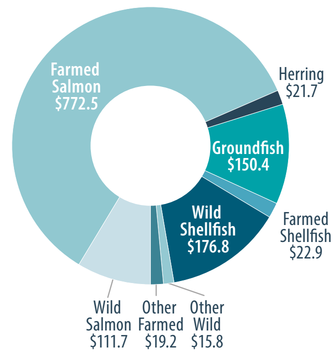
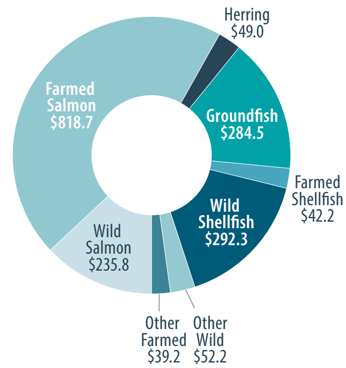


FIGURE 5: *B.C. Seafood Wholesale Value ($ Millions)*



B.C. Wild and Farmed Seafood Production 2016-2018

	HARVEST ('000 Tonnes)				LANDED VALUE ($ Millions)				WHOLESALE VALUE ($ Millions)			
	2016	2017	2018	% change 17/18	2016	2017	2018	% change 17/18	2016	2017	2018	% change 17/18
Commercial Fisheries	186.9	183.0	196.3	7.3	398.8	397.9	476.4	19.7	877.3	876.2	913.8	4.3
Farmed	105.5	97.2	98.0	0.8	781.4	770.1	814.6	5.8	886.9	864.5	900.1	4.1
GRAND TOTAL B.C.	**292.4**	**280.2**	**294.3**	**5.0**	**1,180.2**	**1,168.0**	**1,291.0**	**10.5**	**1,764.2**	**1,740.7**	**1,813.9**	**4.2**

FIGURE 6: *Salmon Harvest ('000 Tonnes)*

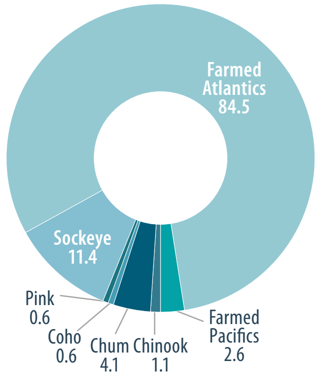


FIGURE 7: *Salmon Landed Value ($ Millions)*

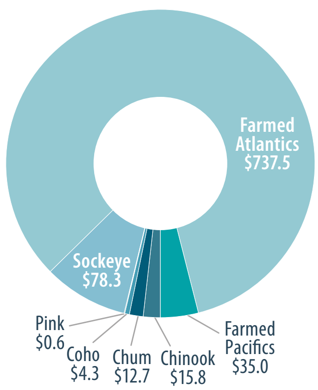
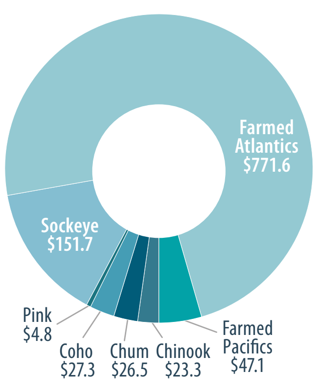


FIGURE 8: *Salmon Wholesale Value ($ Millions)*



Salmon

WILD AND FARMED SALMON CONTINUED TO BE A SIGNIFICANT CONTRIBUTOR to the harvest (36 per cent, 104,900 tonnes), landed value (69 per cent, $884.2 million) and wholesale value (58 per cent, $1,054.5 million) of B.C. seafood in 2018.

FARMED SALMON

In 2018, farmed salmon had sizable shares of all B.C. seafood in terms of harvest (30 per cent, 87,100 tonnes), landed value (60 per cent, $772.5 million), and wholesale value (45 per cent, $818.7 million).

Atlantic Salmon had the largest share of any B.C. seafood species with respect to landed value (57 per cent, $737.5 million, Figure 7), and wholesale value (43 per cent, $771.6 million, Figure 8), and second largest share in terms of harvest (29 per cent, 84,500 tonnes).

Pacific Salmon harvest levels remained at 2,600 tonnes in 2018, but landed value rose by 4 per cent to $35.0 million, and wholesale value increased 6 per cent to $47.1 million.

WILD COMMERCIAL SALMON

In 2018, wild salmon represented a notable share of the harvest (6 per cent, 17,800 tonnes), landed value (9 per cent, $111.7 million) and wholesale value (13 per cent, $235.8 million) of all B.C. seafood species.

Chum harvest continued to fall in 2018, down another 41 per cent to 4,100 tonnes, overall a 75% drop since 2016. The landed value fell 42 per cent to $12.7 million in 2018. The wholesale value was down 40 per cent to $26.5 million.

Sockeye harvest in 2018 was the peak in the four-year cycle with a wholesale value of $151.7 million, up from $90.7 million in 2017. The harvest rose from 500 tonnes to 11,400 tonnes. The landed value increased as well going from $4.6 million in 2017 to $78.3 million in 2018.

Coho had a fall in harvest from 1,300 tonnes in 2017 to only 600 tonnes in 2018. Landed value fell from $8.4 million to $4.3 million. Despite the smaller harvest and lower landed value, the 2018 wholesale value rose 13% to $27.3million.

Chinook dropped 12 percent in wholesale value to $23.3 million along with 8 per cent declines in harvest (down to 1,100 tonnes) and landed value (down to $15.8 million).

Pink harvest declined in 2018 by 84% to 600 tonnes, landed value dropped by 82% to $600,000, and the wholesale value fell 63% to $4.8 million.

Herring

IN 2018, THERE WERE SIGNIFICANT DECREASES in the volume of herring harvested (down 28 per cent to 20,300 tonnes), the value of fish sold by fishers (down 24 per cent to $21.7 million), and the processed value (down 27 per cent to $49 million).

ROE HERRING

The roe herring fishery, which produces herring roe, herring meal and animal feed products, had the greatest share of the herring harvest (67 per cent and 13,600 tonnes, Figure 9), landed value (67 per cent and $14.5 million, Figure 10) and wholesale value (76 per cent and $37 million, Figure 11). All three of these measures decreased in 2018 over 2017: harvest (down 33 per cent), landed value (down 16 per cent), and wholesale value (down 28 per cent).

SPAWN-ON-KELP

Decreases were seen in the spawn-on-kelp harvest (down 38 per cent to 150 tonnes), landed value (down 40 per cent to $3.9 million) and wholesale value (down 40 per cent to $4.5 million). This fishery had a share of herring landed value of 18 per cent.

FOOD, BAIT AND OTHER

As other herring seafood types, food, bait and other also decreased in any of the three economic measures: harvest dropped 12 per cent to 6,500 tonnes; landed value dipped 28 per cent to $3.3 million; and wholesale value fell six per cent to $7.5 million. Food, bait and other was the second largest herring fishery in terms of harvest (32 per cent, Figure 9) and wholesale value (15 per cent, Figure 11).

FIGURE 9: *Herring Harvest ('000 Tonnes)*

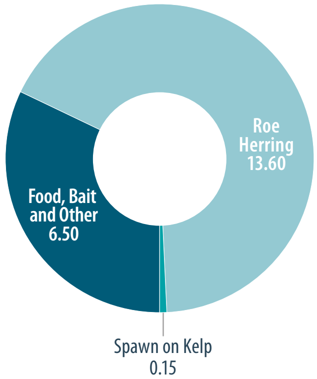


FIGURE 10: *Herring Landed Value ($ Millions)*

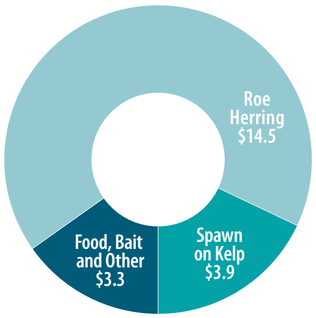
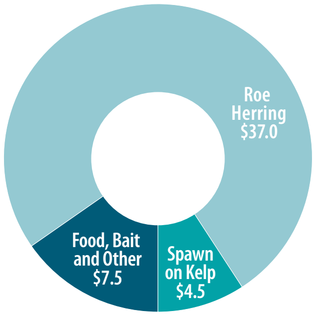


FIGURE 11: *Herring Wholesale Value ($ Millions)*



Groundfish

THE SPECIES GROUP WITH THE LARGEST SHARE OF THE SEAFOOD HARVEST in 2018 was groundfish (48 per cent, 141,600 tonnes). These species also represented notable portions of the landed value (12 per cent, $150.4 million) and wholesale value (16 per cent, $284.5 million) of all B.C. seafood. Harvest increased by approximately 12 per cent, while landed value and wholesale value dipped slightly.

HAKE

In terms of harvest, hake represented the largest share of any seafood species (35 per cent, 102,200 tonnes), and by far the largest share of any groundfish species (72 per cent, Figure 12) in 2018. Moreover, the hake catch was the largest since 1994. The share of wholesale value of this species was the largest of any groundfish species (31 per cent, $88.7 million). In addition, hake recorded significant increases in harvest and landed value (the highest since 2006).

HALIBUT

In 2018, Halibut sank in landed value (down 25 per cent to $44.1 million) as well as decreased in harvest (down 13 per cent to 3,300 tonnes) and wholesale value of (down 13 per cent to $63.2 million). This species had by far the largest share of the landed value of any groundfish species (29 per cent, $44.1 million, Figure 13). Furthermore, it represented the second highest share of the wholesale value of any groundfish species (22 per cent, $63.2 million, Figure 14).

ROCKFISH

Of all groundfish species, rockfish represented the second largest share of harvest (11 per cent, 15,800 tonnes) and fourth largest share of landed value (15 per cent, $22.1 million) and wholesale value (12 per cent, $34.5 million). These species experienced a slight decrease in harvest (down six per cent) and landed value (down eight per cent), while wholesale value dropped significantly (down 35 percent).

FIGURE 12: *Groundfish Harvest ('000 Tonnes)*

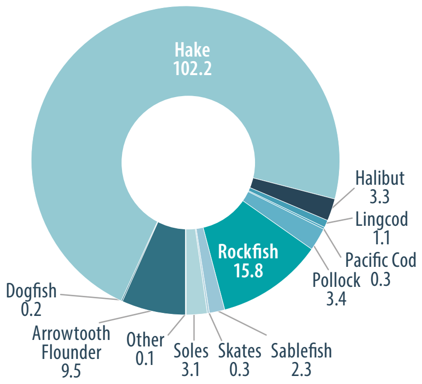


FIGURE 13: *Groundfish Landed Value ($ Millions)*

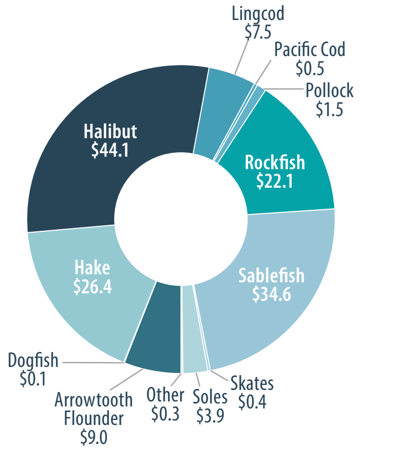
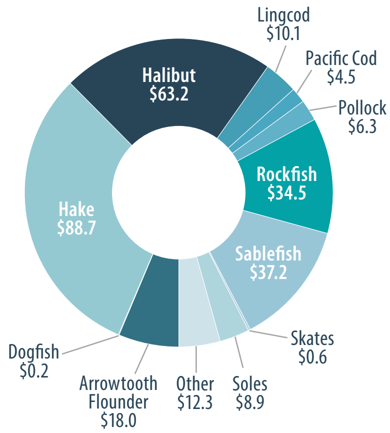


FIGURE 14: *Groundfish Wholesale Value ($ Millions)*



ARROWTOOTH FLOUNDER

Arrowtooth flounder decreased in harvest (down six per cent to 9,500 tonnes), landed value (down 10 per cent to $9.0 million) and wholesale value (down 10 per cent to $18 million). Although this species experienced a decline in harvest in 2018, it still had the third largest share of the harvest of any groundfish species (seven per cent).

POLLOCK

Harvest (3,400 tonnes) and landed value ($1.5 million) for this species remained unchanged from 2017 to 2018. However, it decreased in wholesale value (down 25 per cent to $6.3 million).

LINGCOD

Between 2016 and 2017, lingcod decreased in three economic measures: harvest (down 15 per cent to 1,100 tonnes), landed value (down 15 per cent to $7.5 million) and wholesale value (down six per cent to $10.1 million).

FIGURE 15: *Shellfish Harvest ('000 Tonnes)*

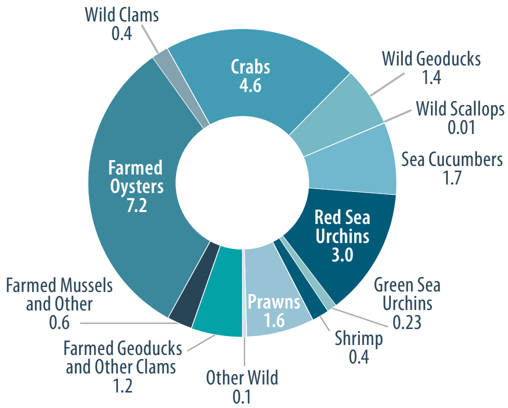


FIGURE 16: *Shellfish Landed Value ($ Millions)*

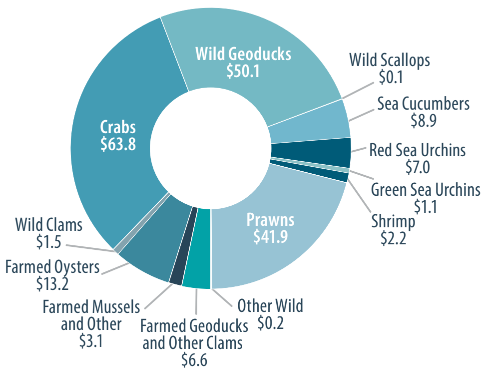
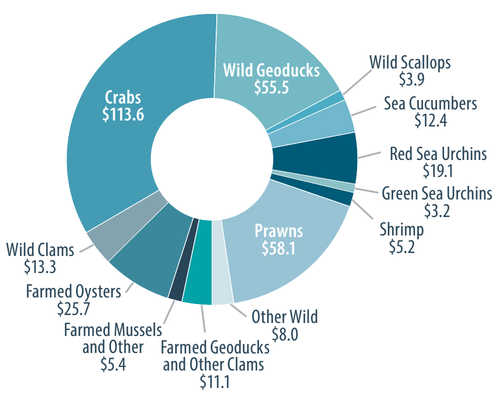


FIGURE 17: *Shellfish Wholesale Value ($ Millions)*



Shellfish

FROM 2017 TO 2018, SHELLFISH GREW SIGNIFICANTLY in landed value, up 23 per cent to $199.7 million. Wholesale value was up 15 per cent to $334.5 million. The harvest volume only increased by 2 percent to 22,400 tonnes.

WILD SHELLFISH

Of all shellfish, the 13,400 tonnes harvest of wild species represented 60 per cent of the harvest, 89 per cent with a landed value of $176.8 million and a wholesale value of $292.3 million representing 87% of all shellfish. 2018 saw the harvest up 11 per cent, and a large upswing in landed value, up 28 per cent, and in wholesale value, up 23 per cent.

Geoducks (wild) harvest in 2018 remained steady at 1,400 tonnes (Figure 15), landed value was up 15 per cent to $50.1 million (Figure 16) and wholesale value up 8 per cent to $55.5 million (Figure 17). Geoducks represented the second largest share of shellfish landed value (25 per cent).

Shrimp harvest in 2018 rebounded from the large drop in 2017 with a similar increase in landed value to $2.2 million. The wholesale value declined 9 per cent to $5.2 million.

Prawns experienced a rise in harvest reaching 1,600 tonnes. The landed value saw a 64 per cent increase to $41.9 million and the wholesale value saw a smaller 32 per cent rise to $58.1 million.

Crabs 2018 saw a harvest rise of 21 per cent to 4,600 tonnes. Landed value went up 34 per cent to $63.8 million, and wholesale value up 29 per cent to $113.6 million. It was also the largest wild shellfish group in harvest (34 per cent, Figure 15), landed value (36 per cent, Figure 16) and wholesale value (39 per cent, Figure 17).

FARMED SHELLFISH

Between 2017 and 2018, there was a 20 per cent decline in wholesale value with a total of $42.2 million of farmed shellfish. The harvest was down 9 per cent to 9,000 tonnes, and landed value was down 3 per cent to $22.9 million.

Mussels & Other Shellfish: There was a large decrease in the wholesale value (down 49 per cent to $5.4 million) of mussels and other shellfish in 2018, despite increases in the harvest (up 100 per cent to 600 tonnes) and landed value (up 82 per cent to $3.1 million).

Oysters: Oysters contributed the largest share of the farmed shellfish harvest (80 per cent, 7,200 tonnes), landed value (58 per cent, $13.2 million) and wholesale value (61 per cent, $25.7 million) of all farmed shellfish. This species recorded a drop in harvest of 13 per cent and 10 per cent in both landed and wholesale value.

Other Seafood Species

IN 2017, OTHER SEAFOOD HAD A FIVE PER CENT SHARE OF SEAFOOD WHOLESALE VALUE AT $91.4 MILLION.

Tuna represented the largest share of other seafood with respect to harvest (53 per cent, 2,700 tonnes) and wholesale value (50 per cent, $46.1 million), and the second largest portion in terms of landed value (41 per cent, $14.3 million). Significant growth was seen in this species in terms of harvest (up 50 per cent), while it decreased in landed value (down nine per cent) and wholesale value (down 14 per cent).

Other Farmed Seafood (freshwater trout, steelhead, tilapia, sturgeon, sablefish, Arctic char, microalgae, kelp, seaweed) rose in harvest (up 19 per cent to 1,900 tonnes) and landed value (up eight per cent to $19.2 million), while declined in wholesale value (down two per cent to $39.2 million). At 55 per cent, this species group had the largest share of the landed value of other seafood; it also had the second greatest share of harvest and wholesale values.

Other Wild Seafood (mackerel, smelt, sea vegetables, seaweed, kelp, hagfish, other finfish) remained steady in landed value ($1.5 million), while decreasing dramatically in harvest (down 29 per cent to 500 tonnes) and wholesale value (down 19 per cent to $6.1 million).

B.C.'s Seafood Export Highlights

B.C. EXPORTED $1.4 BILLION WORTH OF SEAFOOD PRODUCTS TO 78 INTERNATIONAL MARKETS IN 2018.

Five markets accounted for 91 per cent of seafood exports: United States (55 per cent $768.7 million), China (22 per cent $$306.1 million), Japan (9 per cent $$122.1 million), Ukraine (3 percent $39.3 million), and Hong Kong (3 per cent $35.3 million).

The fastest growing export markets of the top 10 were South Africa (up 364 per cent to $10.9 million) and the Ukraine (up 109 per cent to $39.3 million).

Five species generated almost 66 per cent of B.C.'s total seafood export value in 2018: farmed Atlantic salmon (39 per cent, $541.1 million), crabs (11 per cent, $159.1 million), hake (7 per cent, $102.7 million), sockeye salmon (4 per cent, $56.1 million), and geoduck clams (4 per cent, $54.8 million) (Figure 18). In 2018, markets to which B.C. exported the greatest number of species were the United States (37 species), China (30 species), Hong Kong (24 species), Japan (23 species), and the United Kingdom (21 species).

The seafood species with the largest increases in export value were sockeye salmon (up 315 per cent to $56.1 million), shrimp and prawns (up 44 per cent to $53.1 million), hake (up 43 per cent to $102.7 million), sole (up 31 per cent to $9.4 million), and pollock (up 29 per cent to $2.5 million).

The species most widely exported were hake (to 35 markets), sockeye salmon (to 23 markets), chum salmon (to 22 markets), Atlantic salmon (to 20 markets), and geoduck (to 18 markets).

FIGURE 18: *B.C. Seafood Exports ($ Millions)*

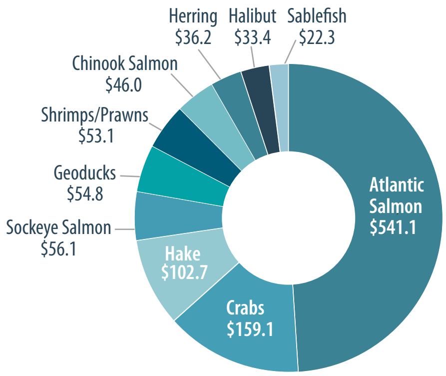
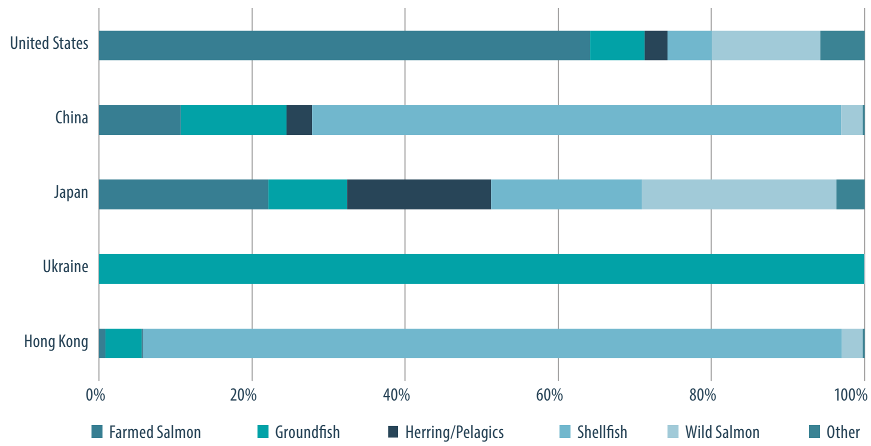


FIGURE 19: *B.C. Seafood Top 5 Markets – Shares by Species*



Significant Events in B.C.'s Seafood Sector 2018/19

BROUGHTON ARCHIPELAGO AQUACULTURE

The Provincial Government met with First Nations in the Broughton area to discuss the issue of salmon farm tenures in their asserted traditional territories and agreed to move forward on a consent-based government-to-government process to reach agreement, which was formalized in a letter of understanding (LOU) on June 27, 2018. The Province's historic government-to-government talks with First Nations in the Broughton were grounded in the shared responsibility of reconciliation and have produced important recommendations to address Nations' longstanding concerns about salmon aquaculture. The resulting recommendations will help protect and restore wild salmon stocks, allow an orderly transition of open-pen finfish aquaculture from the Broughton and create a more sustainable future for local communities. Funding for advancing the recommendations was provided through the B.C Salmon Restoration and Innovation Fund (BCSRIF) including the development of a First Nations-led monitoring and inspection program to oversee farms during transition.

NEW AQUACULTURE POLICY

B.C. has taken steps to transition to a sustainable salmon aquaculture industry that respects wild salmon, embraces reconciliation with First Nations and protects jobs. In June 2018, the Province announced a new aquaculture policy which states that as of June 2022, the Province will only grant Land Act tenures to fish farm operators who have satisfied Fisheries and Oceans Canada (DFO) that their operations will not adversely impact wild salmon stocks, and who have negotiated agreements with the First Nations in whose territory they propose to operate. Many salmon farming operations already have agreements with First Nations and this new approach will create clarity for salmon farming by bringing industry and First Nations together in full partnership. Thousands of jobs depend on maintaining a healthy marine environment in B.C., along with the livelihoods and economic prosperity of coastal communities and First Nations.

WILD SALMON

International Pacific Salmon Treaty: Canada and the US are each responsible for managing their own salmon fisheries under the terms of the Pacific Salmon Treaty (PST). The chapters within the treaty set out conservation and harvest sharing arrangements for stocks and fisheries, and most chapters within the treaty were last renewed in 2009 for a 10-year period. Renegotiations of the expiring Chapters under the Canada-US Pacific Salmon Treaty were completed by the end of 2018 which marked a significant achievement by the PST.

IYS: The North Pacific Anadromous Fish Commission (NPAFC) marked 2019 as the International Year of the Salmon (IYS) and hosted an IYS North Pacific Opening Event in Vancouver on October 11, 2018 along with the Pacific Salmon Foundation (PSF). The opening event was attended by many salmon conservation leaders from many organizations including Indigenous groups, NGOs, academia, industry members, and provincial and federal governments. Premier Horgan spoke at the event, highlighting the importance of salmon to all British Columbians and the need for ongoing collaboration with DFO on conservation initiatives, including salmon enhancement and habitat restoration. IYS events will continue until the year 2022.

Gulf of Alaska International Salmon Research Expedition: As part of the International Year of the Salmon, the B.C. government supported a comprehensive study of the stock abundance, composition, and condition of Pacific salmon in the Gulf of Alaska. The expedition consisted of a team of 21 international scientists from Canada, Korea, Japan, Russia, and the United States. The survey covered 1,000s of nautical miles in a large grid comprising some 60 stations in the Gulf of Alaska, 350 km off-shore. Based on the fish caught, it was estimated that there were 54.5 million Pacific Salmon in the survey area, which was further broken down to (millions): 27.73 million chum, 13.59 million coho, 9.04 million sockeye, 4.21 million pink and 0.37 million chinook. Data collection was extensive and included collecting fish, plankton, ocean and climate data, which are currently undergoing analysis at labs around the world and expected to be reported out in scientific journals. For more information: *https://yearofthesalmon.org/gulf-of-alaska-expedition/*

INTERNATIONAL PACIFIC HALIBUT TREATY

Pacific halibut range from California to Alaska and the stock is managed through the International Pacific Halibut Commission (IPHC) who host annual meetings to determine catch allowances and other management measures between the US and Canada. At the 2019 IPHC annual meeting in Victoria, B.C. renegotiations were successful as Canada and the US were able to reach agreement on new Pacific halibut catch limits which was an important milestone after being unable to reach agreement in 2018 for the first time in roughly 30 years. Canada was successful in attaining a proportional share of overall halibut catch of 17.7% for four years which is a significant achievement and should provide stability in continuing to reach agreement. Domestically, the B.C. commercial fishery received 85% of the Canadian allocation in and the recreational fishery received 15%.

BCSRIF

On March 15, 2019, Premier Horgan and former federal Fisheries and Oceans Minister Jonathan Wilkinson announced a $142.85 million five-year joint investment to create the British Columbia Salmon Restoration and Innovation Fund (BCSRIF), which is a federally managed fund cost-shared with the Province (70% federal and 30% provincial). This five-year fund is available to proponents for projects related to fish and seafood initiatives including salmon stock protection and habitat restoration, innovations in aquaculture, and support for the fish and seafood sector in B.C to ensure long-term environmental and economic sustainability. The provincial funding priorities for the first year of BCSRIF were guided by the recommendations provided in the final report of the Wild Salmon Advisory Committee and by the recommendations resulting from the negotiations in the Broughton, and were identified as:

- Protecting critical salmonid habitats from loss or degradation and investing in the restoration of critical habitats that have been lost or degraded.
- Maintenance of healthy and diverse salmon populations, with focus on existing community-based hatcheries and community education.
- Supporting the implementation of the recommendations that were provided by First Nations governments, industry and the Province around aquaculture in the Broughton Archipelago.

The Province has also invested in the Canadian Fish and Seafood Opportunities Fund (CFSOF) which launched on December 5, 2018, which is a federally managed program that will invest in $42.85 million to promote market access and development projects for the Canadian fish and seafood industry. Projects will advance key cross-cutting market access issues and promote branding opportunities to maximize the value of Canadian seafood.

SHELLFISH FOOD AND SAFETY RESEARCH

The Ministry of Agriculture and Genome British Columbia (Genome BC) are funding three projects that will broaden Canada's ability to identify strains of norovirus and Vibrio parahaemolyticus and positively change the way shellfish-related illness outbreaks and food safety investigations are handled. Research groups participating in this work include: The Canadian Food Inspection Agency (CFIA), British Columbia Centre for Disease Control (BCCDC), a program of the Provincial Health Services Authority, the University of British Columbia (UBC), and Vancouver Island University. The research aims to develop tools to support food safety investigations and illness outbreak management, limiting economic impacts on the industry and detect the sources and dispersal patterns of norovirus contamination in marine environments. The projects are funded through Genome BC's Sector Innovation and GeneSolve programs along with funding from the Ministry of Agriculture's B.C. Oyster Recovery Fund, announced in 2018, which specifically targeted bringing industry and academia together to find solutions for sector challenges. For more information:

https://www.genomebc.ca/blog/new-research-will-broaden-canadas-ability-to-identify-strains-of-oyster-related-illnesses

https://news.viu.ca/viu-receives-300000-research-norovirus-contamination-oysters

BC YOUNG FISHERMANS GATHERING

The BC Young Fishermen's Gathering provides an opportunity for new and young fishermen to develop skills, build resiliency and competitiveness in their business and improve the sustainability of the commercial fishing sector. The Ministry of Agriculture contributed $10,000 to support the annual BC Young Fishermen's Gathering 6-7 February 2018 in Steveston. The two-day meeting hosted close to 65 industry members, including over 40 young fishermen. The Gathering featured sessions on the business of fishing, direct marketing of catch, at-sea safety, green boating practices and fisheries management and science.

AQUACULTURE CANADA 2019 – AQUACULTURE IN THE CLASSROOM

The Aquaculture in the Classroom project is a collaborative initiative developed in partnership with the BC Ministry of Agriculture, Sector Development Branch (Aquaculture and Marine Fisheries and Youth Development Teams), the BC Agriculture in the Classroom Foundation and the Aquaculture Association of Canada (AAC). In 2019, the conference was held at the Victoria Conference Centre and 42 students from Reynolds High School joined to answer the question: "How is the aquaculture industry able to contribute to a sustainable future?" Students spent a full day immersing themselves in this vibrant industry with participation at the conference Trade Show, meeting conference delegates, and sitting down to chat with a diverse range of industry professionals from Canada and abroad. In teams, the students used clips from the tour and trade show as well as interviews of delegates they met to create short, 3 minutes videos that make connections to their school curriculum in science, environmental sustainability, food, nutrition. The winning videos are posted on the BC Agriculture in the Classroom Foundation's website: ***https://www.bcaitc.ca/index.php/search/node?keys=aquaculture***. This year's Aquaculture in the Classroom Project was sponsored by the Aquaculture Association of Canada, Vancouver Island University, Taplow Feeds and the Ministry of Agriculture.

Data and Contact Information

DATA INFORMATION

- Aquaculture industry harvests and farm gate values, and wild commercial fisheries harvests and values are adapted from data compiled each spring by Fisheries & Oceans Canada, Pacific Region.
- Wholesale values are compiled by the Ministry of Agriculture. Note that these are estimates, and that estimates for recent years are subject to revision.
- Export data are sourced from Statistics Canada.
- Comparisons among years for harvests, landed values, and wholesale values should be made with caution due to interannual changes in survey methods. Specifically, changes in these three variables among years may be partly due to variations in the amount of data received from industry and government sources, variations in the degree to which these data were verified, and other year-to-year methodological changes.

CONTACT INFORMATION

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This report is available online at:
http://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/statistics/industry-and-sector-profiles

February 2020

NOTES

CANADIAN AGRICULTURAL PARTNERSHIP

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