Fur Seal Industry of the Pribilof Islands, 1786-1965



UNITED STATES DEPARTMENT OF THE INTERIOR FISH AND WILDLIFE SERVICE BUREAU OF COMMERCIAL FISHERIES

Circular 275

	Dress	Dressed, dyed, machined, and finished			Sheared Female	
Year	Male		Female			
	Spring sale	Fall sale	Spring sale	Fall sale	Spring sale	Fall sale
		(Ave	rage value p	er skin)		
1957	\$91.56	\$68.90	-	-	-	
1958	71.27	86.14	-	-		-
1959	99.75	103.23	-		-	- 1
1960	101.66	104.35	-		-	\$36.05
1961	87.94	86.69	-	-	\$11.99	41.05
1962	106.42	107.53	-	-	44.33	48.40
1963	122.52	1/111.72		(1)	43.09	40.63
1964	105.45	85.56	\$71.16	\$64.34	48.82	59.65
1965	116.36	2/103.78	89.21	(2)	47.68	60.80

AVERAGE VALUE OF PRIBILOF ISLANDS SEALSKINS, 1957-65

1/ A total of 4,668 female skins were sold with the male skins.

 $\frac{1}{2}$ A total of 1,870 female skins were sold with the male skins.

Note: -- The skins sold were taken several years prior to the date of sale.

Cover.... A small fur seal harem

UNITED STATES DEPARTMENT OF THE INTERIOR Stewart L. Udall, Secretary David S. Black, Under Secretary

Stanley A. Cain, Assistant Secretary for Fish and Wildlife and Parks FISH AND WILDLIFE SERVICE, Clarence F. Pautzke, Commissioner BUREAU OF COMMERCIAL FISHERIES, H. E. Crowther, Director

Fur Seal Industry of the Pribilof Islands, 1786-1965

By

FRANCIS RILEY

Circular 275

Washington, D.C. October 1967



Harems on the Pribilof Islands



Breeding grounds of the northern fur seals: Robben Island (Kaihyōtō or Tyuleniy Island) off Sakhalin; the Commander Islands (Bering Island and Medny or Copper Island) at the Soviet end of the Aleutian chain; and the Pribilof Islands--St. Paul Island, St. George Island, Otter Island, Walrus Island, and Sea Lion Rock.



"Fur seals sporting around the baidar--Natives of St. Paul lightering off the bundled sealskins to the ship from the Village Cove." A sketch by Henry W. Elliott, who visited the Pribilofs for the Treasury Department and the Smithsonian Institution in 1872, shortly after purchase of the Islands from Russia. The baidar, or bidarrah, was made of sea lion skins; canvas-covered bidarrahs are still used in ship-to-shore ferrying.

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Fur seals (cow and bull)

Fur Seal Industry of the Pribilof Islands, 1786-1965

By

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Bureau of Commercial Fisheries Washington, D.C.

HISTORY (The Islands and the Seals)

The Pribilof Islands lie about three hundred miles off the mainland of Alaska in the heart of the Bering Sea. Surrounded in the summer almost constantly by dense fog and drizzling mists, they are the most insignificant landmarks known to that body of water. The Islands are the natural retreat and only breeding ground of the Alaska fur seal herd. There, on the rocky beaches, the young are born each summer. In the fall, after the breeding season is over, the seals leave the Islands and return to the sea.

Other fur seals, also belonging to the genus <u>Callorhinus</u>, are found on a few islands off Russia and Japan. To a limited extent the fur seals belonging to the genus <u>Arctocephalus</u> are found in cold areas of the Southern Hemisphere. It is generally believed that the Alaska fur seal herd comprises over 80 percent of all existing fur seals in the world today.

The nature and pattern of the fur seals' habits are such that a program of wise utilization can be readily devised and practiced. The Alaska fur seals come ashore only on the Pribilof Islands in late May and early June before the snow has melted. They are highly polygamous animals - the sexes are born in equal numbers - and it is possible to take the surplus males for their skins without reducing the growth of the herd. The story of the Pribilof Islands fur seal herd is one of adventure and international diplomacy. It is a heartening account of cooperation among nations and an outstanding example of wildlife conservation.

The Alaska fur seal was not valued highly by Russian fur gatherers as they prospected for and exploited the sea-otter herds in the Aleutian Archipelago. The seal herd had' been noticed as it went north in the spring and returned south in the fall through the passes and channels of the Aleutian chain. As the sea otter reached a point of extermination, however, the fur seal became the source of much speculation as to its breeding habits and where it spent its time on land. In 1786, after more than 18 years of search by hardy Russian navigators, the land home of the fur seal was found with the discovery of the island of Saint George (Pribilof group) by Gehrman Pribylov. He took possession of the land in the name of Russia and endowed it with the name of his sloop, the Saint George. It was estimated that the seal herd (at the time of the Russian discovery) contained at least 2 1/2 million animals. Almost immediately the teeming rookeries of the Pribilofs began to yield sealskins to the fur markets of the world.

A few years before Pribylov's discovery, adventurous mariners from New England and Europe, in their search for oils to replace the rapidly declining supply of whale oil, had investigated the commercial possibilities of the great herds of fur seals inhabiting the southern seas. In the 50 years that followed, fur seal rookeries on countless islands were destroyed as fast as they were discovered. Every seal that could be obtained was killed. Literally millions of pelts were delivered into the China trade. The sealing business was profitable, but the period of prosperity did not last. The huge populations of fur seals south of the Equator were rapidly annihilated with the exception of only a few small herds that still exist in the Southern Hemisphere.

The early exploration of the Alaska fur seal herd followed the same destructive course as that in the southern seas. Russian sealing operations were wasteful and largely unrecorded. There were no restrictions on the number of seals killed; no attempts made to protect females. Operations were conducted in this manner until 1799. In that year the seal Islands passed into the control of the Russian-American Company, which remained in charge until Russia sold Alaska to the United States.

The records of the Russian-American Company's early operations are imperfect, but it is known that overseers recognized the dangers of overexploitation. At various times they placed temporary bans on killings. These were, however, inadequate, and by 1834 the herd had dwindled to the lowest point under Russian jurisdiction. As a result, Russia applied a stringent ban on killing in 1835. After a rest of 7 years, when fewer than 10,000 skins were taken annually, the kill was gradually increased under controlled conditions. Only males were taken--the killing of females was forbidden.

After the initial period of unrestricted killing, the take of seals by the Russians appears to have been conservative. Although complete data are not available, scientists have estimated that more than 2 1/2 million pelts were taken between the time the Islands were discovered and 1868--the year in which Alaska was annexed to the United States.

During the first year (1868) of American occupation, various independent parties took 140,000 seals. In the following year, before the Islands were set aside by the U.S. Government as a special reservation for the protection of the animals, 86,000 seals were killed. A year later the U.S. Treasury Department was authorized to lease exclusive rights to take seals on the Islands, with stipulations that no females were to be killed.

During the next 40 years of U.S. ownership, the sealing privilege on the Pribilofs was leased to private companies (The Alaska Commercial Company and the North American Commercial Company). More than 2 million fur seal skins were taken. From 1870 to 1889, the Alaska Commercial Company had little difficulty in getting its annual quota of 100,000 skins. Sealing on the Islands was carefully regulated; however, pelagic sealing (the killing of seals at sea) was not regulated. By 1889 pelagic sealing was taking a heavy and damaging toll which threatened to exterminate the Alaska fur seal herd.

Fur seals are vulnerable to capture at sea as well as on land. The Indians of the northwest coast of America from time immemorial followed the custom of spearing fur seals from their canoes as they passed along the shore. The catch, however, was small and had little effect on the fur seal herd. The animals were taken primarily for food and clothing. Between 1871 and 1878, this fishery was expanded. By 1879, schooners averaging 70 tons and fitted out to transport hunters and canoes to the sealing grounds, engaged in the fur seal harvest.

Sealing on land was controlled, but at sea all animals became targets. The result was the loss of many injured animals, and others that had been killed outright sank and were never retrieved. More important was that a high percentage of the take was females whose death resulted in the loss of their unborn pups or starvation of new-born pups left on land. Pelagic sealing greatly disturbed the pattern of production to which the conservation of the herd had been tailored; the slaughter was to end only when the herd had been reduced to such a low point that pelagic sealing as well as land killing was unprofitable. Pelagic sealing on a commercial scale reached its peak in 1894 when nearly 62,000 skins were taken. Between 1868 and 1909 almost a million skins were taken on the high seas.

Pelagic sealing was an extremely wasteful method of taking seals. For many years there was no way to prevent these operations -- they were carried on in waters beyond the control of the countries possessing the rookeries. The United States recognized that the wasteful killing at sea was greatly against the interests of the herd and sought to establish jurisdiction over pelagic sealing in the Bering Sea. The United States seized and confiscated a number of sealing vessels that operated in those waters. The action resulted in a controversy with Great Britain, for the pelagic fleet was largely of Canadian registry. In 1892 the entire matter was remanded to a tribunal of arbitration. This body, which met in Paris in 1893, denied the United States authority to exercise jurisdiction over the Pribilof Islands' fur seals when such animals were more than 3 miles from shore. Although other regulations were formulated to protect the animals, they later proved to be inadequate and the Pribilof herd continued to decline.

In 1897 Congress enacted a law forbidding American citizens to engage in pelagic sealing at any time or place. In 1910, the U.S. Government assumed full charge of sealing operations on the Pribilof Islands following expiration of the leasing program. By then, the once great herd had been reduced to less than 150,000 animals.

After extended diplomatic negotiations, timely and concerted action by conservationists of four countries (United States, Great Britain, Japan, and Russia) finally succeeded in getting their countries to accept the terms of the North Pacific Fur Seal Convention of 1911. Pelagic sealing was prohibited except by aborigines using primitive weapons. Each country owning fur seal rookeries agrees to share 30 percent of the annual take of sealskins -- Canada and Japan each to receive 15 percent of the sealskins from the Pribilof Islands and 15 percent of those from the Commander Islands, and Canada, Russia, and the United States each to receive 10 percent of the pelts from Robben Island. The Convention remained in force for 30 years until terminated by Japan in 1941. From 1942 to 1957 the Pribilof herd was protected by a provisional agreement between Canada and the United States, and in 1957 a new North Pacific Fur Seal Convention, similar in basic provisions to the 1911 Convention, was concluded by Canada, Japan, The Union of Soviet Socialist Republics, and the United States.

The Convention of 1911 provided, for the first time, a sound basis for the management of the North Pacific fur seals. Since 1911 the Alaska fur seal herd has steadily increased from less than 150,000 seals to its present level of

TAKE OF PRIBILOF ISLANDS FUR SEALS, 1786-1965

Year	From Pribilof Islands	From pelagic and other sources	Total	
	Number	Number	Number	
1786 - 1796	1/2/417,758	(3)	417,758	
1797 - 1816	4/ 844,890	(3)	844,890	
1817	4/5/ 60,188	(3)	60,188	
1818	4/5/ 59,856	(3)	59,856	
1819	4/5/ 52,224	(3)	52,224	
1820	4/5/ 50,220	(3)	50,220	
1821	4/5/44,995	(3)	44,995	
1822	5/ 36,469	(3)	36,469	
1823	5/ 29,873	(3)	29,873	
1824	5/ 25,400	(3)	25,400	
1825	5/ 30,100	(3)	30,100	
1826	5/ 23,250	(3)	23,250	
1827	5/ 19,700	(3)	19,700	
1828	5/ 23,228	(3)	23,228	
1829	5/ 20,811	(3)	20,811	
1830	5/ 18,034	(3)	18,034	
1831	5/ 16,034	(3)	16,034	
1832	5/ 16,446	(3)	16,446	
1833	5/ 16,412	(3)	16,412	
1834	5/ 15,751	(3)	15,751	
1835	5/ 6,580	(3)	6,580	
1836	5/ 6,590	(3)	6,590	
1837	5/ 6,802	(3)	6,802	
1838	6/ 6,000	(3)	6,000	
1839	6/ 6,000	(3)	6,000	
1840	6/ 8,000	(3)	8,000	
1841	6/ 8,000	(3)	8,000	
1842	6/ 10,370	(3)	10,370	
1843	6/ 11,240	(3)	11,240	
1844	6/ 11,924	(3)	11,924	
1845	6/ 13,637	(3)	13,637	
1846	6/ 15,070	(3)	15,070	
1847	6/ 17,703	(3)	17,703	
1848	6/ 14,650	(3)	14,650	
1849	<u>6</u> / 21,450	(3)	21,450	
1850	6/ 6,770	(3)	6,770	
1851	<u>6</u> / 6,770 <u>6</u> / 6,564 <u>6</u> / 6,725 <u>6</u> / 18,035	(3)	6,564	
1852	6/ 6,725	(3)	6,725	
1853	6/ 18,035	(3)	18,035	
1854	<u>6</u> / 26,146	(3)	26,146	
1855	6/ 8,585	(3)	8,585	

See footnotes at end of table.

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TAKE O	F PRIBILOF	ISLANDS FUR	SEALS, 17	786-1965 -	Continued
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Year	From Pribilof Islands	From pelagic and other sources	Total
	Number	Number	Number
1856	6/ 23,550	(3)	23,550
1857	6/ 21,082	(3)	21,082
1858	6/ 31,810	(3)	31,810
1859	6/ 22,000	(3)	22,000
1860	6/ 21,590	(3)	21,590
1861	7/ 29,699	(3)	29,699
1862	8/ 20,000	(3)	20,000
1863	8/ 25,000	(3)	25,000
1864	8/ 26,000	(3)	26,000
1865	8/ 40,000	(3)	40,000
1866	8/ 42,000	(3)	42,000
1867	8/ 48,000	(3)	48,000
1868	9/ 140,000	4,367	144,367
1869	9/ 85,901	4,430	90,331
1870	9/ 23,773	8,686	32,459
1871	9/ 102,960	16,911	119,871
1872	9/ 108,819	5,336	114,155
1873	9/ 109,117	5,229	114,346
1874	9/ 110,585	5,825	116,410
1875	9/ 106,460	5,033	111,493
1876	9/ 94,657	5,515	100,172
1877	9/ 84,310	5,210	89,520
1878	9/ 109,323	5,540	114,863
1879	9/ 110,511	8,557	119,068
1880	9/ 105,718	8,418	114,136
1881	9/ 105,063	10,382	115,445
1882	9/ 99,812	15,581	115,393
1883	9/ 79,509	16,587	96,096
1884	9/ 105,434	16,971	122,405
1885	9/ 105,024	23,040	128,064
1886	9/ 104,521	28,494	133,015
1887	9/ 105,760	30,628	136,388
1888	9/ 103,304	36,389	139,693
1889	9/ 102,617	29,858	132,475
1890	9/ 28,859	40,814	69,673
1891	9/ 14,406	59,568	73,974
1892	9/ 7,509	46,642	54,151
1893	9/ 7,390	30,812	38,202
1894	<u>9</u> / 15,033	61,838	76,871
1895	9/ 14,846	56,291	71,137
1896	9/ 30,654	43,917	74,571
1897	9/ 19,200	24,332	43,532

See footnotes at end of table.

(Continued on next page)

TAKE OF PRIBILOF ISLANDS FUR SEALS, 1786-1965 - Continued

Year	From Pribilof Islands	From pelagic and other sources	Total	
	Number	Number	Number	
1898	9/ 18,047	28,552	46,599	
1899	9/ 16,812	34,168	50,980	
1900	10/ 22,470	35,191	57,661	
1901	10/ 22,672	24,050	46,722	
1902	10/ 22,386	22,812	45,198	
1903	10/ 19,292	27,000	46,292	
1904	10/ 13,128	29,006	42,134	
1905	10/ 14,368	25,320	39,688	
1906	10/ 14,476	21,236	35,712	
1907	10/ 14,964	16,036	31,000	
1908	10/ 14,996	18,151	33,147	
1909	14,368	14,139	28,507	
1910	13,586	12,111	25,697	
1/1911	12,006	12,671	24,677	
1912	3,764	12/ 205	3,969	
3/1913	2,406	495	2,901	
1914	2,735	366	3,101	
1915	3,947	439	4,386	
1916	6,468	629	7,097	
1917	8,170	737	8,907	
1918	34,890	483	35,373	
1919	27,821	626	28,447	
1920	26,648	2,343	28,991	
1921	23,681	3,115	26,796	
1922	31,156	2,563	33,719	
1923	15,920	5,818	21,738	
1924	17,219	3,285	20,504	
1925	19,860	6,509	26,369	
1926	22,131	3,899	26,030	
1927	24,942	2,301	27,243	
1928	31,099	3,902	35,001	
1929	40,068	4,969	45,037	
1930	42,500	3,984	46,484	
1931	49,524	1,649	51,173	
1932	49,336	1,938	51,274	
1933	54,550	2,076	56,626	
1933	53,468	2,070	53,758	
1935	57,296	980	58,276	
1935	52,446	1,927	54,373	
1936	55,180	2,832	58,012	
1937	58,364	1,551	59,915	
1938	60,473	637	61,110	

See footnotes at end of table.

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Year	From Pribilof Islands	From pelagic and other sources	Total	
	Number	Number	Number	
1940	65,263	14/ 65	65,328	
1941	95,013	21	95,034	
1942	15/ 150	_	150	
1943	16/ 117,184	_	117,184	
1944	47,652	91	47,743	
1945	76,964	39	77,003	
1946	64,523	417	64,940	
1947	61,447	186	61,633	
1948	70,142	244	70,386	
1949	70,990	90	71,080	
1950	60,204	333	60,537	
1951	50,771	735	51,506	
1952	63,922	28	63,950	
1953	66,669	54	66,723	
1954	63,882	-	63,882	
1955	65,453	_	65,453	
1956	122,826	-	122,826	
1957	93,618	-	93,618	
1958	78,919	-	78,919	
1959	57,810	_	57,810	
1960	40,616	-	40,616	
1961	95,974	-	95,974	
1962	77,915	-	77,915	
1963	85,254	-	85,254	
1964	64,206	-	64,206	
1965	51,020		51,020	

TAKE OF PRIBILOF ISLANDS FUR SEALS, 1786-1965 - Continued

1/ Berg's Chronological history, 1820, cited in Fur-Seal Arbitration, Case of the United States, Proc. Trib. Arbitration, Paris, 1895, 1:125. 2/ Attempts to obtain authentic records on the number of fur seals slain upon the Pribilof Islands before 1868 were partially successful. Counts of shipments of skins to be exported to China or Russia were made by the Russian Company when the skins were shipped to Sitka. Beyond this, there were only a few records on the number of animals consumed in Alaska, lost through wastefulness and crude methods of curing skins, or destroyed in warehouses. This confuses a correct determination as to the sum totals and the result probably represents not more than one-half of the seals killed during these years. 3/ Fur seals taken from areas other than the Pribilof Islands are included with those taken on the Islands. 4/ Elliott's Monograph, reprint Seal and salmon fisheries, part 3, p. 115, gives the number of seals killed from 1797 to 1821 as 1,112,373, after deducting 5,000 skins annually for skins shipped from the Commander Islands. The number 844,890 is obtained by deducting from the above number the seals stated by Vemaminof to have been killed during 1817-21. 5/ Vemaminof's Notes on islands of Unalaska District, part 2, table 6, cited in Fur-Seal Arbitration, Case of the United States, Proc. Trib. Arbitration, Paris, 1895, 1:126. 6/ Report of H. H. McIntyre, 1869 (House Ex. Doc. 36, 41st Congr., 2d Sess.). 7/Report of British Commissioners, Fur-Seal Arbitration, Proc. Trib. Arbitration, Paris, 1895, 6:109. 8/ The fishery industries of the United States, 1880, by G. Brown Goode (Henry W. Elliott), sect. 5, History and methods, 2:361-362. 9/ The commercial fisheries of Alaska in 1905. [U.S.] Bur. Fish., Doc. 603:32. 10/ The fur-seal fisheries of Alaska in 1909 by Walter I. Lembkey, [U.S.] Bur. Fish. Doc. 735. 11/ Convention for the Protection and Preservation

TAKE OF PRIBILOF ISLANDS FUR SEALS, 1786-1965 - Continued

of the Fur Seals and Sea Otters was signed July 7, 1911. 12/ By 1912, illegal pelagic sealing at the expense of the Pribilof Islands herd had entirely ceased; however, the Convention allowed Indians, Aleuts, or other aborigines dwelling on the coasts of America to take fur seals under primitive conditions. The take of fur seal skins from pelagic and other sources from 1912 to 1953 was made under these conditions. 13/ The Act of Congress approved August 24, 1912. provided that "all killing of fur seals on the Pribilof Islands, or anywhere within the jurisdiction of the United States in Alaska, shall be suspended for a period of five years, and shall be, and is hereby, declared to be unlawful." In strict compliance with that provision of law, no seals were killed except those necessary for food for the natives. 14/ After 1940, interest in pelagic sealing dwindled. No skins were taken in 1942 and 1943 when employment was at a high point and military restriction on offshore activities was in effect. Since 1954 there has been no known commercial pelagic sealing carried on at the expense of the Pribilof Islands herd. 15/ Owing to the war situation in the Alaska and Aleutian Islands area, all inhabitants of the Pribilof Islands were removed by order of the military authorities. When the evacuation was ordered, sealing operations were just getting under way. The take of skins was very small. 16/ This figure represented the second largest kill under controlled conditions in the history of the Islands. In 1943, the normal number of seals were taken and also those animals which would have been taken in 1942 if normal sealing operations had been carried on. Note: Data for 1909-59 from The fisheries of Alaska in 1909; Alaska fisheries and fur industries for the year 1910 through 1919; Alaska fishery and fur-seal industries for the years 1920 through 1955; and Fishery statistics of the United States, 1956-65. These are a series of [U.S.] Bureau of Fisheries Documents, Administrative Reports, and Statistical Digests assembled and published by the Bureau of Commercial Fisheries and its predecessor organizations.







about 1 1/2 million animals--an outstanding accomplishment in the conservation of wildlife. Since 1939 the herd has sustained an average annual take of about 69,000 sealskins. The future of the Alaska fur seal herd seems assured as long as the countries of the world continue to work together in the solution of problems peculiar to such migratory wildlife populations.

INDUSTRIAL PRODUCTS FROM THE SEALS

After the U.S. Government assumed full charge of sealing operations in 1910, efforts were made to utilize waste products of the industry. For the most part, fur seal carcasses had been abandoned to the elements. Natives on the Islands used some seal meat as food and other parts of the carcasses in the making of clothing. The abandoned carcasses were also a source of food for the blue fox populations on the Islands. World War I stimulated efforts to use waste products. Seal meat was preserved in salt for experimental use by the Department of Agriculture, the gullets or throats of the animals were used experimentally for fine leather, oil and gelatine were extracted from carcasses, tests were made of the suitability of intestines for sausage casing, and bone deposits were collected for chemical analysis. Little was actually achieved, although 472,000 pounds of fur seal bones were sold to fertilizer manufacturers.

In 1918, the Government built a small reduction plant for producing oil from which glycerine, an essential material for munitions, could be prepared. The plant operated on a limited basis from 1919 through 1924, and for a short period in 1928. Operations were restricted by a shortage of coal for fuel. The plant produced about 82,000 pounds of meal and 34,000 gallons of oil. Although there were some sales, over half of the meal was used as fox food on the Islands and over two-thirds of the oil was used in the tanning of sealskins and in the preparation of fox food. About 1920, the price of meal and oil declined to the point where operation of the plant was not economical.

In 1930, the plant was modernized and enlarged. The new installation was completed in 1931 but, owing to low oil and meal prices, did not operate until 1935. The plant was then used each season until 1962, except in 1942 when the Pribilof Islands were evacuated for military reasons.

During World War II, the demand for meal and oil increased; however, the plant was too small to utilize all of the available waste products from the increased harvest of sealskins. Plans were made to double the capacity of the plant, but owing to wartime conditions, expansion was not completed until 1948.

Plant production yielded an annual average of about 636,000 pounds of seal meal and 46,000 gallons of oil between 1948-61. During 1935-39, most of the meal was used as fish food in hatcheries operated by the U.S. Fish and Wildlife Service. After 1939, the product was sold as a protein ingredient in poultry feed. Small quantities were also fed experimentally to fur-bearing animals or sold to State fish hatcheries. Fur seal oil had been sold since 1935 for use in leather tanning. The reduction plant was abandoned in 1962 because of poor markets for fur seal meal and oil.

In 1962 and 1963, a private firm experimented with using fur seal carcasses as mink feed and an initial shipment of 150 tons of frozen meat found a ready market in 1963. In 1964, a 5-year contract to utilize stripped fur seal carcasses was awarded to Pacific Fur Foods, Inc. A 500-ton capacity sharpfreezer and cold storage unit was installed on St. Paul Island, and the firm processed 1,636,000 pounds of seal carcasses, mostly into frozen ground meat suitable for mink food. The cold storage plant and processing procedures were improved in 1965, and about 1,736,000 pounds of frozen ground seal meat were produced.

I States	Quantity	produced	Quantity sold		
Year	Meal	Oil	Meal	Oil	
The loss of the loss	Pounds	Gallons	Pounds	Gallons	
1919	20,568	3,000	20,568	3,000	
1920	19,000	1,853	15,393	-	
1921	8,759	5,271	_		
1922	1,935	8,546	_	_	
1923	8,703	5,925	_	_	
1923	19,014	6,870		1.000000002000	
	(1)	(1)	1,019	Contraction of the second	
1925	(1)	(1)	3,518		
1926		(1)	5,510		
1927	(1)				
1928	4,215	2,479	-		
1929-34	(1)	(1)	-	10.000	
1935	155,254	18,994	-	18,238	
1936	276,040	25,252	-	23,669	
1937	330,265	29,830	-	29,341	
1938	357,222	30,587		29,865	
1939	502,914	32,809	338,421	27,966	
1940	618,762	30,605	569,536	24,405	
1941	747,546	54,610	746,457	39,610	
1942	(1)	(1)	-	-	
1943	782,000	75,259	244,679	94,482	
1944	484,776	32,976	835,470	32,976	
1945	547,969	41,189	547,969	41,189	
1946	528,040	33,912	528,040	33,912	
1947	606,514	39,746	606,514	39,746	
1948	686,089	48,592	684,089	48,592	
1949	694,350	49,253	693,350	49,253	
1950	673,558	42,013	672,000	41,689	
1951	702,616	39,867	702,000	39,867	
1952	729,806	35,029	729,806	35,029	
1953	705,935	46,800	705,935	46,800	
1954	661,131	40,220	661,131	40,220	
1955	642,876	40,509	642,876	40,509	
1956	1,252,169	88,270	1,252,169	88,270	
1957	748,277	53,291	748,277	53,291	
1958	636,000	52,908	636,000	52,908	
1959	659,167	39,307	659,167	39,307	
1960	332,000	22,300	332,000	22,300	
1961	624,000	52,458	624,000	52,458	
1961-65	(1)	(1)	(1)	(1)	

PRODUCTION AND SALES OF FUR SEAL MEAL AND OIL, 1919-65

1/ Plant not operated. Source:--Data for 1919-34 from Alaska fisheries and fur industries and Alaska fishery and fur-seal industries. These are a series of [U.S.] Bureau of Fisheries Documents and Administrative Reports. Data for 1935-49 from Fishery Leaflet 380 by Ralph C. Baker. Data for 1950-65 from Alaska fishery and fur-seal industries and Fishery statistics of the United States. These are a series of Statistical Digests assembled and published by the Bureau of Commercial Fisheries and its predecessor organizations.

Year of shipment	Net weight	Receipts less expense of sale	
and a state of the state	Pounds	Value	
1917	32,170	\$ 322	
1918	338,900	4,532	
1919	101,084	1,447	
Total	472,154	6,301	

SHIPMENT AND SALE OF FUR SEAL BONES, 1917-19

Note: Includes old sea lion bones.

Source: Alaska fisheries and fur industries. [U.S.] Bur. Fish., Docs. 847, 872, and 891.



Small harem: bull, cows, and pups

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