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## THE NORTH PACIFIC FUR SEAL INDUSTRY. THE RECORD OF INTERNATIONAL MANAGEMENT

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Each summer, the northern fur seals (Callorhinus ursinus) return to their island rookeries. Except as odd stragglers, very few animals venture north of the Pribilofs. In the eastern Pacific the seals migrate south to the Channel Islands off Santa Barbara, California in winter. To the west they range from the Commander Islands in the north to the seas southwest of Kinkazan Peninsula on northern Honshu and into the Sea of Japan. Bull seals from the Pribilofs winter principally in Alaskan waters, mostly the Gulf of Alaska, while the older females and young travel far south.

Except for the period from 23 October 1941, when the Convention of 1911 was terminated by Japan's abrogation of the Treaty, until the Interim Convention on Conservation of North Pacific Fur Seals was signed 9 February 1957, this valuable resource has been under the management of an international commission with membership of the United States, Canada, the U.S.S.R. and Japan. The record is an outstanding case study of successful international co-operation and conservation and management of a renewable natural resource. (Refer to introductory comment in *Inter-Nord* N° 8).

The Pacific Fur Seal Industry 1786-1911. The fur seal rookeries of the Commander Islands were discovered in 1741 by Russian explorers. Not until the once great population of sea otters began to decline in the last decades of the 18th century did the Russian traders and hunters turn their attention to fur seal pelts. After several years of exploration Gerassium Pribilof, in 1786-87, discovered the Islands of St. George and St. Paul and their immense wealth of breeding seals.

Soon after the discovery of St. Paul the Russians began to take a large annual harvest of fur seal pelts. Incomplete historical records suggest that between 1789 and 1869 the Pribilof Islands produced more than 2.5 million skins. By 1805, when the Russian-Ame-

rican Company took charge of the island industry, the Pribilof seal herd had declined to a point where a closed season was declared, from 1806 to 1810. Additional periodic closures in the early 19th century did not prevent a continued decrease in the herds. Finally, from 1835 to 1867, a restricted kill of male animals and prohibition against the taking of females resulted in a slow growth of the seal population. When the United States purchased Alaska in 1867, and with it the Pribilof Islands, the fur seal population had increased to a point where it sustained an annual kill of several thousand males. Although the United States government intended to continue the conservation practices of the Russians, the Pribilof herd was ruthlessly decimated by private American interests during 1868 and 1869.

An Act of Congress in 1868 prohibited the killing of fur seals and on March 3rd, 1869 the Pribilof Islands were set aside a special reservation for the protection of the animals. A year later the United States Treasury Department was authorized to lease exclusive rights to the Islands' fur seal resources, with the stipulation that no female seals were to be killed. Under the first 20 year lease, starting in 1870, the Alaska Commercial Company took 1,854,029 pelts. A second 20 year lease, granted to the North American Commercial Company, produced only 342,651 seal skins for the period ending in 1909.

Unfortunately for the North American Commercial Company, its contract period coincided with the hayday of pelagic sealing. As a commercial enterprise, pelagic fur seal hunting began about 1868 and reached its greatest extent between 1889 and 1909. In that short period alone an estimated 600,000 animals

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were taken on the high seas by American, Japanese and Canadian sealers.

The combined effects of the land-based and pelagic sealing were so great that by 1909 only about 200,000 fur seals remained. Approximately 134,000 of these animals were found on the Pribilof Islands.

International Agreement and Conservation, 1911-1967. After extended diplomatic negotiations and a long series of ineffectual bilateral agreements, the United States, Japan, Canada and Russia concluded a convention on July 7th, 1911, for the protection of the fur seals of the North Pacific. This convention, with some modifications instituted in 1942, 1957 and 1964, is still in effect. Under the agreement pelagic sealing was prohibited except by aborigines using primitive weapons. In lieu of pelagic hunting rights, Japan and Canada each received 15 percent of the pelts harvested by the United States and the Soviet Union, with certain exceptions for the sharing of Russian production, particularly for the period 1964-67.

From 1911 to 1955 various conservation and management techniques were employed by the U.S. Government in order to stimulate growth in the Pribilof seal herd and still maintain a reasonable yearly harvest. The annual kill fluctuated between 15,000 and 31,000 animals of all ages during the period 1919 to 1928, and between 40,000 and 65,000 seals from 1929 to 1940. Apparently the herd increased at a rate of from six to eight percent per year from 1925 to 1948.

Beginning in 1945 and continuing through 1955 the annual seal harvest was from 59,000 to 77,000. Additional research during this time provided insights

into seal population dynamics and new management programmes. In 'an effort to maintain a stable seal pup population of about 500,000 per year, to lower mortality and to eliminate wide fluctuations in the survival of young seals, it was decided to reduce the total female population from an estimated 1,200,000 to about 800,000. Scientific evidence also suggested that the reduced herd would sustain an annual yield of about 60,000 males and 30,000 females.

The herd reduction programme began in 1956 and terminated after the 1963 season. Recently revised calculations suggest that while the original predictions on the annual take of male animals are reasonable the production of females will probably lie between 9,000 and 18,000 yearly. In the decade after 1956 the total annual kill on St. Paul ranged from about 32,000 to over 100,000.

With the protection afforded by the 1911 convention, the Robben Islands and Commander herds apparently began to prosper once more, but did not increase in proportion to the phenomenal multiplication of the Pribilof herds in the period from 1911 to 1940. During the last war the Japanese greatly increased the kill of fur seal and the Robben Islands herds probably declined sharply from the 1941 level of about 50,000. Under the more recent management of the U.S.S.R. the population of the Asian herds has increased to the level where a sustained commercial yield is once more possible. Table I summarizes the commercial kill of fur seals from 1958 to 1967 and indicates that the Asian herds have steadily increased in relative importance from less than ten percent of the total commercial kill to about one guarter of the total annual harvest.

TABLE I

North Pacific Fur Seal Commission

Commercial kill of fur seals, 1958-1964

Year	Tota! Kill	Robben Islands	Commander Islands	Pribilof Islands	
				Number	% total
1958	85,122	3,127	3,021	78,974	92.8
59	65.270	4,802	2,261	58,207	89.2
60	50,948	6,251	4,081	40,616	79.7
61	94,069	6,947	5,023	82,099	87.3
62	90,371	7,037	5,405	77,929	86.2
1963	101,058	7,339	7,381	86,338	85.4
64	84,305	8,317	10,556	65,432	77.6
65	71,598	8,432	11,433	51,733	72.3
66*	73,000	8,500	11,500	53,000	72.6
67*	86,650	8,750	12,300	65,600	75.7

SOURCE: 1958 through 1965 actual commercial kill as reported in North Pacific Fur Seal Commission; proceedings of annual meetings through 1966. Estimates for 1966 and 1967 based upon preliminary reports on actual kill on Pribilof Islands and minimum (1968) and maximum (1967) planned kills on USSR islands as reported at 1968 meeting of Commission.

<sup>·</sup> Preliminary data and estimates.

In addition to the commercial kill there is also a significant kill of fur seals both on land and at sea for scientific purposes. Japan and Canada as well as the United States and the Soviet Union under a 1964 protocol to the 1957 Interim Convention are engaging in a long-range study to determine if pelagic sealing in conjunction with land seals could be permitted in certain circumstances without adverse effect to the achievement of the objectives of the Convention. The outcome of these studies may significantly alter the future nature and conduct of the industry, but for the present and immediate future the Pribilof Islands operations reflect the accepted patterns.

The Pribilof Fur Seal Industry. Seals returning to the Pribilof Islands in summer arrive at varying times depending upon their age and sex. The first to come are the oldest bulls who begin landing at their breeding rookeries in late April and appear in increasing numbers until the middle of June. At this time the oldest females have already started to arrive and join the harems that the bulls are attempting to establish. Three- and four-year old males, which make up the bulk of the commercial kill, arrive in late June, July and early August. Nearly half the four-year old males arrive by 13th-18th July and half the three-year olds by 20th-28th July. The midpoint for the four-year old female arrivals is more than a month later. Threeyear old females arrive still later and two-year old females are found mixed with yearling males in October and early November. The main exodus of seals from their breeding grounds takes place during November even while some yearlings may be still arriving. By the end of the year the beaches of St. Paul are usually deserted.

The Pribilof fur seal industry is divided into three distinct operations. The first is the actual harvest and preparation of raw seal skins for shipment from the islands, the second is the processing and shipment of seal carcass by-products and the third is the final tanning and sale of finished seal skins by a U.S. Government contractor, the Fouke Fur Company of Greenville, South Carolina. Both operations related to the seal skins are labour intensive, there being at least 36 different steps in the island-based process and about 100 individual processes in the Fouke factory. Some automation in the island by-products plant has apparently reduced the number of manual workers.

The final product of the industry, a beautiful, soft, supple fur, has been able to command premium prices of over \$ 100.00 per pelt on the world market. The industry has been so successful in processing and marketing the seal skins that the U.S. Government has earned an annual net profit for many years. Since 1959, when Alaska became a state, 70 percent of the

annual net profits revert to the state treasury. A summary of the seal harvest and receipts, since 1955, is given in Table II.

TABLE II

Receipts from sales of Pribilof Islands fur seal pelts, 1955-1966

•	Gross receipts from sales	Net receipts from sales *	State of Alaska receipts
			Toocipto
	\$	\$	\$
1955	4,423,748	2,920,258	· — ,
1956	4,958,126	3,251,029	1 <del></del> . ,
1957	5,368,809	3,567,858	
1958	3,862,253	2,332,924	·
1959	4,390,203	2,884,648	
1960	4,810,979	3,220,405	813,919
1961	4,487,759	2,839,862	1,050,002
1962	4,296,741	2,742,403	536,809
1963	5,369,938	3,566,765	702,852
1964	5,400,643	3,500,691	589,300
1965	4,079,412	2,530,301	963,635
1966	4,465,603	2,798,856	300,017

\* Net receipts equal gross receipts less contractors' processing cost and one percent discount on cash sales.

SOURCE: Report of Hearings before the Subcommittee of the Committee on Commerce, U. S. Senate to review the administration of fur sealskin operations in the Pribliof Islands; records of the U. S. Department of the Interior.

Up to and including the 1961 season the Bureau of Commercial Fisheries operated a by-products plant on St. Paul Island for the production of oil and meal from the fur seal carcasses. Due to poor market conditions that had developed by 1961, increased costs of operation, and the need to meet expensive replacement costs for equipment and machinery, government operation of the plant was discontinued. There have been no attempt to utilize the fur seal carcasses from the much smaller harvest on St. George Island.

During the 1962 and 1963 seasons the Bureau entered into an agreement with Monarch Marine Products of Vancouver, British Columbia. This company attempted to ship the carcasses by vessel under ice to Vancouver for ultimate use as a mink diet supplement. They experienced very limited success and were unable to continue the venture.

Interest in use of the seal carcasses in mink diet had been established, however, and in 1964 the Bureau entered into a 5-year contract with Oregon-Alaska Marine Products Incorporated, for the utilization of all carcasses on both St. Paul and St. George Islands. This firm installed a 500-ton cold storage facility on St. Paul Island and grinds, bags, and sharp freezes the carcasses, then ships the product to the mink industry in Oregon. This operation has appa-

rently been successful from the company's standpoint and has been satisfactory to the government except for the non-utilization of the St. George Island production.

The original native residents of St. Paul were Aleut people brought from the islands of Atka and Unalaska by the Russians in the late 1780's. Since that time the community has remained intact except for closures of the sealing industry, principally from 1806 to 1810 and 1942 to 1944, when the inhabitants were temporarily evacuated.

Until 1868 responsibility for the welfare of the St. Paul residents rested with the Russian fur traders. Compensation for labour in the sealing industry was in the form of basic food stuffs and living essentials. From 1870 to 1909 the companies leasing sealing rights from the U.S. Government were obliged to furnish, annually, at not no cost, the people of St. Paul with "25,000 dried salmon, 60 cords fire wood and a sufficient quantity of salt and barrels for the preservation of a necessary seal meat supply". After 1910 the government took direct responsibility for the health and welfare of the community.

On November 2nd, 1966 a new fur seal act (Public Law 89-702) was signed into law. Under its provisions the Secretary of the Interior is instructed to "employ natives of the Pribilof Islands and, when necessary, other persons for taking and curing fur seal skins... and compensate them at rates to be determined.

ned by the Secretary". (Sec. 104). The secretary is also authorized to "provide, with or without reimbursement, the natives of the Pribilof Islands with such facilities, services, and equipment as he deems necessary, including but not limited to, food, fuel, shelter, transportation, and education ». (Sec. 203).

During the last two decades local, municipal government has taken an ever increasing responsibility for. the administration of the St. Paul community. Traditionally the native inhabitants supported and maintained the local church, church functions and certain recreational activities of the community, from profits earned in the local canteen. In 1949 it was recommended that St. Paul accept a Corporate Charter under the Indian Reorganization Act of 1934. On June 17th, 1950 a constitution and charter were adopted under the name of the \* Aleut Community of St. Paul Island . At this time an elected community council was formed. The following year the community filed a claim for native rights with the Indian Claims Commission in Washington, D.C., on behalf of St. Paul. In October 1965, the council took over trusteeship of the community canteen funds thus making the store wholly owned and operated by St. Paul. Less than a year later the community opened its own tavern and equipped a St. Paul operated maintenance and repair workshop. About the same time the council accepted more responsibility for police activities. By late summer of 1967 the community had taken over all retail outlets in St. Paul, to include the previously owned and operated government store.