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The Story of the Pribilof Fur Seals

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

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The northern fur seal is one of the world's most fascinating creatures. The animal itself, however, is no more fascinating than the story of its life since man first interjected himself into the seal's habitat. It is a story of both flagrant plunder and outstanding international wildlife conservation.

This era is one in which man has begun to appraise the price he has paid for progress, in the form of damaged environment and diminished resources. Even the very young talk knowledgeably of such things as endangered species, depletion and extinction. The story of the northern fur seal and its Pribilof Islands home stands out as an exciting and encouraging example of what can be accomplished through sound management, intensive research, and international cooperation. From a point at which this valuable resource had been hunted to near extinction by indiscriminate killing in the open sea, the northern fur seal has been nurtured back to nearly an optimum population level. The fur seal population dropped to a point below 300,000 in 1910. Today the Alaska fur seal herd numbers an estimated 1.4 million animals, a healthy population from which surplus young males are selectively harvested on St. Paul Island. It is one of the most dramatic conservation achievements recorded since man first began making serious efforts to undo some of the damage he has inflicted on his environment and the living natural resources it sustains.

Breeding Grounds of the Fur Seal

In addition to the Pribilof Islands, northern fur seals presently breed in large numbers on the Commander Islands at the Soviet end of the Aleutian chain, and on Robben Island off Sakhalin. Small populations of fur seals breed on the Kuril Islands, between Kamchatka and Hokkaido, and on San Miguel Island and Castle Rock off California. Approximately 80 percent of the world population, however, breeds on the Pribilof Islands of St. Paul, St. George and Sea Lion Rock.

The conservation of this migratory herd of fur seals is governed by an international agreement between the United States, Canada, Japan, and the Soviet Union. The United States has held jurisdiction over the Pribilofs since the purchase of Alaska from Russia in 1867 and has closely managed the seal herd since 1911 through various Federal agencies, currently the National Marine Fisheries Service. Previously the resource was not always protected, and at several points in its history, the northern fur seal was exploited to the brink of extinction.

Fur Sealing History

The story of modern man's involvement with the fur seal begins in the 18th century. North American Indians and Aleuts had been taking fur seals for many centuries previously for subsistence purposes and later for sale of the skins to traders. George Wilhelm Steller, a German naturalist in the service of Imperial Russia, was marooned on Bering Island

in 1741. The wrecked vessel, commanded by Vitus Bering, was returning to Kamchatka after a voyage of exploration to North America. Intrigued by the elaborate social structure of the seal and sea lion herds which thronged the island, Steller built an observation blind overlooking a fur seal rookery. Here, he made a series of remarkably precise observations which were published in 1751—one of the earliest behavior analyses of any mammal.

About 40 years later, adventurous sailing skippers from New England and Europe discovered the commercial possibilities in the large herds of southern fur seals along the coast of South America, Antarctica, and South Africa. During the next half century, fur seal rookeries on Islo Alejandro Selkirk (formerly Mas Afuera), Juan Fernandez, the South Shetlands, Prince Edward, the Antipodes, and many other islands, were destroyed as fast as they were discovered. Literally millions of pelts were taken and populations of fur seals south of the Equator were decimated rapidly. Some small groups survived, however, and still live off the coasts of South Africa, South America, Australia, New Zealand, the Galapagos Islands, and some sub-Antarctic islands. Some have fully recovered, such as the South African fur seal.

The next major phase in the chronology of the fur seal developed farther north where the Russians had observed hordes of seals swimming northward each spring through the passes of the Aleutian Islands, disappearing into the fog and mist of the Bering Sea.

In 1783, Gerassim Pribilof, navigator in the service of Imperial Russia, joined the search for breeding grounds outside the Commander Islands. His discovery of St. George Island in 1786 and St. Paul in 1787 within the group of islands that now bears his name, exposed the principal breeding grounds and sanctuary of the northern fur seal to exploitation by man. The unrestricted killing of seemingly uncountable numbers began, following virtually the same pattern which nearly eliminated the southern fur seal. Overnight the teeming rookeries of the Pribilofs became a source of sealskins for the entire world, and an estimated 2.5 million pelts were taken during the next few decades.

During this period, harvesting was uncontrolled and breeding females were unprotected. In 1834, when it was obvious that the herd was facing annihilation, Russia forbade the killing of females—and the fur seal population began to recover. By 1867, when the United States purchased Alaska from Russia, including the Pribilofs, the herd was reported to be large and thriving.

During the first two years of U.S. jurisdiction, a number of independent sealing companies were allowed to operate on the islands and in the first season an estimated 200,000 to 300,000 skins were taken, a number now considered to be excessive for

healthy management of the herd. To halt this destruction, Congress in 1869 established the Pribilofs as a special reservation to protect the animals while they were on their breeding grounds, and in addition provided for a controlled harvest. The U.S. Treasury Department was authorized to award the first of two consecutive 20-year leases for sealing on the islands by private companies and was charged with seeing that the lessees spared the females and took only that number of young males specified by the Government. Under the first 20-year lease the lessee was authorized to take 100,000 young males each year and in fact harvested just under two million sealskins during the contract period. The company awarded the second lease was able to take only 342,651 seals probably because the contract period coincided with the peak of pelagic sealing. This totally unregulated operation, taking mostly females, was responsible for reducing the Pribilof herd to a remnant of its former size.

Fans of Jack London will recall that the author's classic "Sea Wolf" was a tale of swashbuckling open-sea sealing. Swashbuckling it may have been; devastating to the seal population it definitely was. Pelagic sealing, primarily by sealers from the United States, Canada, and Japan, reached its peak in 1894 when 61,838 sealskins were taken. From 1889 to 1909, over 600,000 animals were taken—and at least that many or more were lost after being wounded and not recovered. The herd had now been reduced from an estimated two million to probably 300,000.

Pelagic sealing was even more disastrous to the Alaska herd than the catch data indicate. Sealers working the high seas killed indiscriminately, without regard to age or sex. Since females outnumbered males, because of the distribution of the sexes at sea, from 60 to 80 percent of the pelagic harvest consisted of females. Not only was all future reproduction lost from the females killed, but dependent pups were left to starve on land because a mother seal, with rare exceptions, nurses only her own pup.

Pelagic sealing was halted in July 1911 as part of an international agreement when the United States, Great Britain (for Canada), Japan, and Russia, meeting in Washington, concluded a convention for protection of the North Pacific fur seals. In exchange for a ban on pelagic sealing, the United States and Russia agreed to provide Japan and Great Britain each with 15 percent of their sealskin harvests on rookery islands under their jurisdiction. Japan, in turn, agreed to give the United States, Great Britain, and Russia each 10 percent of its annual harvest on Robben Island. Thus, the 1911 agreement became the instrument that finally gave much-needed protection to the seal herds and also provided an economic gain for the countries involved. It was the first significant step toward the type of international cooperation required for survival of the fur seal.

Since 1910, the harvest of Alaska fur seals has been supervised and carried out by the Federal Gov-

ernment, now by the Department of Commerce's National Oceanic and Atmospheric Administration through the National Marine Fisheries Service. Previously the Service's predecessor agencies carried out this responsibility; first the Bureau of Fisheries in the Department of Commerce and then the Bureau of Commercial Fisheries, Fish and Wildlife Service, Department of the Interior.

To rebuild the depleted herd, Congress placed a ban on commercial killing of fur seals on the Pribilofs from 1912 to 1917. Some seals were taken each year for food for the residents of the islands. Since 1917, the fur seal harvest has been under strict control, normally with only young males taken in numbers determined to be surplus to maintenance of the herd. Under this management, the population increased rapidly and by the late 1930's had become so abundant that Japan became concerned about the predatory effects of the large fur seal herds on her valuable commercial fisheries. In 1940 Japan announced intention to abrogate the fur seal treaty, which she did in October 1941.

From 1942 until 1957, the Pribilof Islands herd was protected in the central and eastern North Pacific Ocean by a provisional agreement between Canada and the United States, which provided Canada with 20 percent of the annual Pribilof sealskin harvest. Presumably there were no pelagic sealing operations during this period, except for a few thousand seals taken annually by the Japanese in the western North Pacific.

A new interim North Pacific Fur Seal Convention similar to the 1911 Convention was concluded in February 1957 by Canada (rather than Great Britain), Japan, the Union of Soviet Socialist Republics, and the United States. It established a Fur Seal Commission comprised of representatives of the four governments to coordinate research and management of the North Pacific fur seal resource. This convention, which is still in existence, also provides that Canada and Japan each receive 15 percent of the sealskins taken commercially by the United States on the Pribilofs and by the U.S.S.R. on the Commander Islands and Robben Island, which Japan lost to the U.S.S.R. as a result of World War II treaties. The U.S.S.R. now has control of all fur seal rookeries off the Asian coast. The Commission provided for a Standing Scientific Committee which meets annually to recommend research programs and harvesting rates. Invariably the Committee's recommendations are adopted by the Commission.

The Fur Seal Act of 1966, which put the convention into effect domestically, renewed the authority of the Secretary of the Interior to provide for the conservation and protection of the fur seal and to administer the Pribilof Islands as a Federal reservation. In October 1970, that authority was transferred to the Department of Commerce where the National Marine Fisheries Service, a part of the National Oceanic and Atmospheric Administration, now su-

pervises the harvest of fur seals on St. Paul Island, largest of the Pribilof group.

In 1973, the United States proposed to the Commission a major research program which involved setting aside St. George Island as a research reserve. The Commission adopted this recommendation. Seals were last harvested for commercial purposes on St.

George in 1972, and an intensive research program was initiated on the Pribilof Islands in 1973 to compare population dynamics and behavior between the harvested population on St. Paul and unharvested population on St. George. Results of this study are expected to make a significant contribution to the scientific knowledge required to maintain northern fur seal herds at the optimum level.

An adult male approaching a female and her pup.

Physical Characteristics

The fur seal's physical features are remarkably adapted to meet its needs, particularly at sea. The beautiful fur, of such quality that it almost brought about the seal's extinction, has over 300,000 hairs per square inch and is so impermeable to water that the skin remains dry even when the seal rubs or scratches itself in the water.

Body temperature is about 100° F (38° C) and overheating from unusual exertion or sunshine when on land causes obvious discomfort. Body temperature above 107° F (42° C) brings on heat prostration and usually death.

The eyes are relatively large and the seal can see very well at night; it feeds primarily at night since many important food species rise to the upper water layers during darkness. The fur seal feeds mainly on small schooling fishes such as anchovy, capelin, and herring, but will take advantage of whatever species are available, generally pollock in the Pribilof Islands area. In deep water areas, squid is a mainstay of its diet. Anchovy, hake, saury, and rockfish are other principal foods off California and Oregon. Off the coast of Washington, herring, rockfish, salmon, and anchovy are leading foods, while herring and wall-eye pollock make up a major part of its diet off southeastern Alaska. Capelin and sand lance are important foods in the Gulf of Alaska, the Aleutian Islands passes and the Bering Sea. However, pollock is especially important in the Bering Sea. Analyses of stomach contents indicate that the fur seal feeds on at least 54 species of fish and nine species of squid. The fur seal diet is similar in the western North Pacific Ocean, Sea of Japan, and Okhotsk Sea.

Other physical characteristics help the seal to survive at sea. Its nostrils can be voluntarily closed, and the external ears are small, tightly rolled cylinders each with a narrow, waxy orifice that prevents the entrance of water. Its 36 teeth are arranged so that each lower incisor fits into a notch in an upper incisor and the upper molars and premolars interlock with the lowers, giving the seal such an efficient bite that no fish or squid can escape.

Seals vary considerably in size and weight depending on sex and age. A newborn pup weighs 10 to 20 pounds (4.5–9.1 kg) and, if it survives, will grow into a mature female weighing 95 to 110 pounds (43.1–49.9 kg) or an adult male weighing from 400 to over 600 pounds (181.4–272.2 kg). Seals selected for commercial harvesting are usually three and four year old males averaging 62 pounds (28.1 kg) and 78 pounds (35.4 kg) respectively. At birth, the average male is 26 inches (66 cm) long, but the female is an inch (2.5 cm) shorter. A large adult female measures 56 inches (142 cm), tip of nose to tip of tail; a male, 84 inches (213 cm).

The color of a seal's fur varies considerably. The females and young males are gray when dry and appear black when wet. After a few days ashore

during the breeding season, the fur of the breeding female is stained to a yellowish-brown color by mud and excrement on the rookeries. Although cleaned somewhat during trips to sea, the pelage is not restored to its original color until molt occurs. Pups are black when born in early summer but turn gray in September and October as a result of their first molt. Males over six years old are predominantly brownish-black, but vary greatly and may be dark gray or reddish brown. The male begins to develop a short bushy mane on his shoulders and neck at about six years of age.

Distribution of the Northern Fur Seal

The northern fur seal is a widely ranging mammal with migratory routes extending down both sides of the North Pacific ocean to about 32° North Latitude. On the eastern side, fur seals migrate southward to the Channel Islands off Santa Barbara, California. In the western Pacific Ocean, they range from the Commander Islands to seas southwest of Tokyo on northern Honshu and into the Sea of Japan and Sea of Okhotsk.

Seals are most frequently found from 10 to 100 miles (16–161 km) offshore; in most abundant numbers between 30 and 70 miles (48–113 km). Major areas of concentration off North America are the Farallon Grounds extending from Point Conception to Point Arena off California, the Vancouver Grounds reaching from south of the Columbia River to the north end of Vancouver Island, the Fair-weather Grounds extending from Sitka to Middleton Island and the Pribilof Grounds. Seals also congregate on Portlock Bank off Kodiak Island and near the Sanak Islands. Full grown males winter principally in Alaskan waters and are seen most frequently in the Gulf of Alaska.

International research reveals a considerable amount of intermixing between seals from American and Asian islands. Tagging studies suggest that roughly 20 to 30 percent of the seals of ages three to five years that are found off the coast of Japan in winter and spring come from the Pribilof Islands. Also it appears that male seals from the Commander Islands make up about one percent of the annual commercial kill of seals on the Pribilofs and that the Pribilofs contribute about 10 to 25 percent of the seals harvested each year on the Commander Islands. Over 96 percent of the fur seals found off Western North America are from the Pribilof Islands.

Unless sick or injured, fur seals rarely touch land from the time they leave their rookery islands in the fall until they return the following year. Most people living along coastal areas of the Western United States are unaware that many thousands of fur seals feed and rest for several winter months in the nearby ocean, particularly off California. They often are seen asleep on the ocean surface, floating on their side or back, with all four flippers folded or with one or more stretched into the air. On the is-

land rookeries, however, all such languor disappears and activity continues unabated, day and night.

Fur Seal Reproduction

Snowdrifts have not melted completely on the mist-shrouded Pribilofs when, in late May and early June, the big breeding males begin to appear on the three islands that have rookeries: St. Paul, St.

George, and Sea Lion Rock. Between 10 and 17 years of age and heavy with fat from the long winter's feeding, the males lumber ashore where each establishes his own individual territory. Other adult males enter a belligerent "beachmaster's" personal territory only at considerable risk.

The adult males enjoy a brief period of rest on land but after mid-June when the females begin to

13 June—By mid-June most of the "beachmasters" have established their territories and await the arrival of the females. Most fur seals of breeding age return to the rookery of their birth.

28 June—By late June the first females arrive and the adult males begin to gather them into their territories. The pups are born soon after the females come ashore. As the pups grow stronger, they eventually form groups or pods and wander over the rookery, while their mothers spend much time at sea searching for food.

8 July—In early July the groups remain closely knit on the crowded rookeries.

3 August—In late July or early August the organized social structure begins to break up and the animals start to spread out.

Adult male seal.

arrive, there is little respite for the huge "beachmasters". Each male vigorously defends his territory and intercepts as many of the relatively docile mature females as he can when they attempt to pass nearby on their way from the sea onto the rookery. The number of females in a male's territory varies from 1 to 100, but the average is about 60. Day and night the air is filled with the bleating of females and young and the roars of the mighty "beachmasters" as each defends his territory against his neighbor and keeps the unbred females "home" through intimidation or force. Battles between males are frequent and sometimes savage. From May until the end of the breeding season, they gradually lose the layers of fat with which they came ashore.

After a one year gestation period, the pregnant female gives birth to a 12-pound pup within 48 hours after she comes on land, and mates again within a week. Because of an unusual reproductive cycle, however, development of her newly formed embryo is halted at an early stage for about four months, or until November, when implantation in the uterus occurs and fetal growth begins anew.

Fur seal pups can swim at birth. They first venture into the water when about four weeks old, and gradually increase their stay there through the weeks ahead. In November the pups leave the rookeries on a swim destined to last as long as two years for some.

The pups are active and precocious, with wide-open eyes. Coats of black hair are molted and replaced by fur in the autumn. They depend entirely on the mother's milk for food and the female generally stays close to her pup for several days, then goes to sea to feed where she may remain for a week and travel as far as 200 miles from the rookery. When she returns, the pup takes on several times more milk than would a human infant of the same body weight. The pup must obtain enough of the rich milk, containing about 50 percent butterfat, to survive between the widely-spaced feedings. The mother seal feeds only her own pup and, despite lengthy absences between nursings, finds her own among the thousands of pups on the rookery.

The female seals nurse their young for three to four months, and are completely protected on the

rookery from all human activity except minor disturbances associated with scientific research to enumerate the population.

As the weather worsens in November, the fur seals leave their Pribilof breeding grounds to spend the next several months at sea, until the reproductive cycle begins anew the following summer.

Early mortality among the pups is high. Many succumb to disease, injury, and malnutrition on the islands before starting their migration; others become prey for northern sea lions and presumably to killer whales and sharks; still more are lost in storms at sea. Yet more than enough young seals survive each year to maintain a large, healthy herd.

Sealing Operations on the Pribilofs

Young subadult male seals up to nine years of age, not yet strong enough or old enough to compete with the fully matured beachmasters, congregate on hauling grounds apart from the rookeries. An occasional brave subadult as young as age seven years may attract a female or two and become part of the breed-

ing structure, but most of the younger males are not permitted on the rookeries until the active breeding season ends in early August. At this time, some young females making their first appearance on the rookeries may breed with these young males.

It is from these hauling grounds that the younger fur seals, primarily three and four year old male animals, are driven for the annual harvest of skins. Because the number of males and females at birth is approximately equal, and since adult males control and breed an average of 60 females each, the majority of these young males are surplus to proper maintenance of the herd. Thus a properly managed taking of young males does not endanger the reproductive capacity of the herd.

National Marine Fisheries Service managers and scientists travel to the Pribilof Islands each year to supervise the harvest of fur seals and to carry out biological research on these animals. Some of the Aleut residents work in all phases of the harvest and in parts of the scientific research program.

A part of the Tolstoi Rookery on St. Paul Island showing the social structure of northern fur seals during the breeding season. In the foreground are the breeding seals and pups. Beyond the margin of the breeding area are massed the idle males, seven to nine years old. Still other idle males wait attentively just offshore, apparently for an opportunity to barge into the breeding area to forcefully displace an exhausted beachmaster.

Removing subadult male seals from the hauling grounds is comparatively easy. Since they are apart from the rookery, harvest acts do not disturb breeding animals on the rookeries. Daybreak of each morning from late June until late July finds the Aleut sealers on one or more hauling grounds. From these hauling areas, they drive the seals a short distance inland from the beaches to suitable harvesting grounds. Because of their insulating fur, the seals are driven slowly and given rest periods as needed to avoid discomfort and possible heat prostration. Small pods containing about six seals are separated from the main group and herded to the stunners where each animal is dispatched by first stunning it with a single blow to the head, then immediately severing the main blood vessels of the heart. Blood pressure immediately drops to zero and death is virtually instantaneous. Females and animals larger or smaller than the size limits set are permitted to escape and rejoin the herd.

During recent years a great deal of investigation has been done to assure that the method used to harvest seals on the Pribilof Islands is the most humane possible. Various Government-sponsored and non-Government groups have examined the methods used. These groups include the World Federation for the Protection of Animals, a Task Force to Study Alternative Methods of Harvesting Fur Seals, the Virginia Mason Research Foundation, a veterinary panel composed of members of the American Veterinary Medical Association's Research Panel on Euthanasia, and the Battelle Institute of Columbus, Ohio. The conclusions reached were that the method in use is a rapid, highly efficient and humane method of harvesting the fur seals. Various recommendations were made to improve the harvesting procedures and these have been adopted. A continuing review of the harvesting methods is maintained as well as close relationship with the American Veterinary Medicine Association and the Department of Agriculture to assure that the National Marine Fisheries Service is familiar with current research and practices regarding the humane killing of domestic livestock and other animals.

After the pelts are taken, they are transported to a processing plant on the island where they are cooled, washed, and the fat or blubber removed. The pelts are then cured in brine, allowed to drain, treated with salt and boric acid, packed in containers for shipment and transported to other locations in the U.S. for sale and the further processing needed to finish them into high quality furs. The meat is used primarily as mink food; however, the Aleut inhabitants of the Islands eat a considerable amount as a desired part of their diet.

Managing the Fur Seal Herd

From the time the Federal government assumed responsibility for management of the fur seal herd in 1910, it has adhered to a policy of taking only those animals considered surplus to breeding re-

quirements. The harvest was restricted essentially to young males, from 1911 through 1955, although a few females were mistakenly killed each year and some were taken for research from time to time. From 1904 through 1912 and again from 1923 to 1932, a minimum yearly breeding reserve of several thousand subadult males was provided by marking them with a brand or shearing a patch of fur, then permitting them to return to the sea. An adequate breeding stock was further assured by limiting the killing season each year to a period from the latter part of June to the end of July and by taking only those male seals within prescribed body-length limits.

By 1956, a climbing mortality rate among the pups on land alerted scientists to the possibility that the seal population was too high. Therefore, a program was begun under the auspices of the North Pacific Fur Seal Commission to reduce the number of pups born annually by removing prescribed numbers of breeding females from the herd over a period of several years. The number of breeding females was reduced because all available evidence (increasing pup mortality on land, wide fluctuations in the annual harvest of males, and failure of the trend in the harvest of males to continue the spectacular increase which began in the 1920's) indicated that the population was above the level which would provide the maximum sustainable productivity required by the treaty. A reduction of herd size to reach the level of maximum sustainable productivity is based on the premise that if a population is allowed to expand to its natural peak, there is an accompanying increase in the death rate attributable to such factors as insufficient food, disease, and injuries associated with overcrowding.

Managers of the fur seal resource of the Pribilof Islands have been conducting research to determine the population level at which the birth rate is the highest and the death rate from natural causes is lowest, which in turn allows a maximum sustainable harvest. Scientists have estimated that the maximum sustainable productivity for the Pribilof fur seals is attained when 350,000 to 400,000 pups are born per year. The number of pups born annually is now within this range; however, the death rate of young animals at sea apparently has increased in recent years and extensive experimentation is underway to determine the cause.

The harvesting of seals on St. George Island was terminated so that the rookery and hauling ground complexes there might become a research control area in a major scientific research program to compare a harvested population (St. Paul) to an unharvested population (St. George). Research is underway to determine the size of various herd elements, causes of death among pups, and behavior of all the animals as related to reproduction. Another phase of the program involves the collection of data at sea on abundance and distribution of seals, as well as on feeding habits and availability of prey species.

In years past, the fat (blubber) was removed manually from the sealskins. Machines are now used for this phase of the operation.

Scientists of the National Marine Fisheries Service monitor several herd elements each year to determine how the resource is responding to management practices. An estimate of the number of pups born is obtained and the number that survive to harvestable ages is determined. The number of adult males on the rookeries and hauling grounds is counted as a check on the adequacy of numbers of young males permitted to escape the harvest. Pups that die on the rookeries are counted to provide additional information on early mortality, and dead pups collected from study areas are examined for causes of death.

Developing and applying correct management practices for the seals is a continuing process and improvements are made as new information becomes available—all part of the long-term program to assure that the Pribilofs will always be blessed with an abundance of northern fur seals.

The Human Factor

With the Pribilof spotlight focused so intently upon the seal, there sometimes is a tendency to forget that humans are very much involved—humans whose own existence is closely interwoven with the welfare of the northern fur seal.

When the U.S. Government assumed responsibility for the Pribilof fur seal, it also assumed responsibility for the inhabitants of the Pribilof Islands—Aleuts who were taken there from the Aleutian Islands by the Russians nearly two centuries ago to provide a labor force for harvesting seals.

Federal Government responsibilities associated with fur seal management provides the major source of income for the Aleuts who live in the two Pribilof communities on St. Paul and St. George Islands. All workers employed by the United States receive standard government wages in accordance with the work performed and the time employed. The Aleut Community of St. Paul, the City of St. Paul, the U.S. Postal Service, National Weather Service, and U.S. Coast Guard also provide some employment. The Tanadgusix Corporation and Tanaq Corporation, on St. Paul and St. George respectively, also offer training and work in their expanding enterprises.

St. Paul, the larger of the two inhabited islands, is home to about 450 residents and St. George has a population of about 150 people. Some of the present residents can trace their ancestry back for 180 years; more than 95 percent of the inhabitants were born on the Pribilofs.

The island villages have facilities comparable to those of many towns in Alaska, including frame houses, electrical service, water, police department, volunteer fire department, and sewer systems. St. Paul has year-round commercial airline service; St. George has twice monthly aircharter service. Both communities boast of color TV stations. St. Paul has several local businesses: a hotel with dining room, two cafes, a movie house, grocery store, post office, tavern, barber shop, laundry and gasoline station. Satellite telephone communications began

Scientist counting adult males. Tripods and catwalks provide safe vantage points for the observer. The bamboo pole is carried as an aid in counting and to ward off aggressive bulls.

Part of the village of St. Paul on the south cape of St. Paul Island is close to several seal rookeries, including Reef, one of the larger.

service in May 1976, and practically every family has at least a short-wave or long-wave radio. Local and inter-island communications are conducted by radio.

The school building in use on St. George Island was built in 1955; a new school was completed on St. Paul in 1973. Education to the 10th year is available on St. Paul Island. Elementary education only is available on St. George. To complete their high-school education, or continue with additional training, Pribilof youngsters must go to the mainland.

The Aleuts are U.S. citizens who vote in local, State, and national elections.

The Alaska Native Claims Settlement Act of 1971 is stimulating many changes for the Aleut people of St. Paul and St. George. The land and houses will no longer be solely owned by the Federal Government as a special reservation. For the first time, the homes will be privately owned by the people residing in them and a large percentage of the land on St. Paul and St. George Islands will be owned by the two Corporations representing the two villages. Buildings surplus to Government needs have been released for selection by the Corporations. The Government has retained that land necessary for administering the seal herds and carrying out other obligations under the Fur Seal Act including the seal rookeries, air strips, utility systems, and other facilities and land necessary.

Since both federal and private land will occur side by side, a substantial mutual interest exists between the National Marine Fisheries Service and the

Aleut people in the cooperative use of this land in the joint interest of the resident people and the fur seals and other wildlife. A Joint Management Board has been formed and a Joint Management Agreement drawn up for the sole purpose of providing guidelines for the joint use of various facilities.

The Pribilofs are a remote treeless group of islands with a reasonably mild climate for such a northern latitude. Agriculture is nonexistent. During an extremely brief growing season in the summer, however, dozens of varieties of wildflowers of rare color and beauty spread over the landscape. Bird lovers and scientists equipped with cameras and binoculars and other special equipment come from all over the world to see tufted puffins, murres, kittiwakes, pelagic cormorants, and many other species. A small herd of reindeer roams St. Paul Island and visitors driving along the roadways may see blue Arctic foxes sitting outside dens with their young.

It is the story of the northern fur seal, however, whose herds have been returned to a healthy, stable condition, and the Aleuts, a people successfully undergoing a cultural and economic transition, upon which the true drama of the Pribilofs is based. With a continued spirit of international cooperation, dedicated research programs such as the St. George Island reserve, sound management, and a serious concern about the lands and waters where the fur seals return to breed, history can be assured that this magnificent animal will continue its annual migration to the Pribilofs—to the benefit of both the seals and the humans who share this island home.

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