

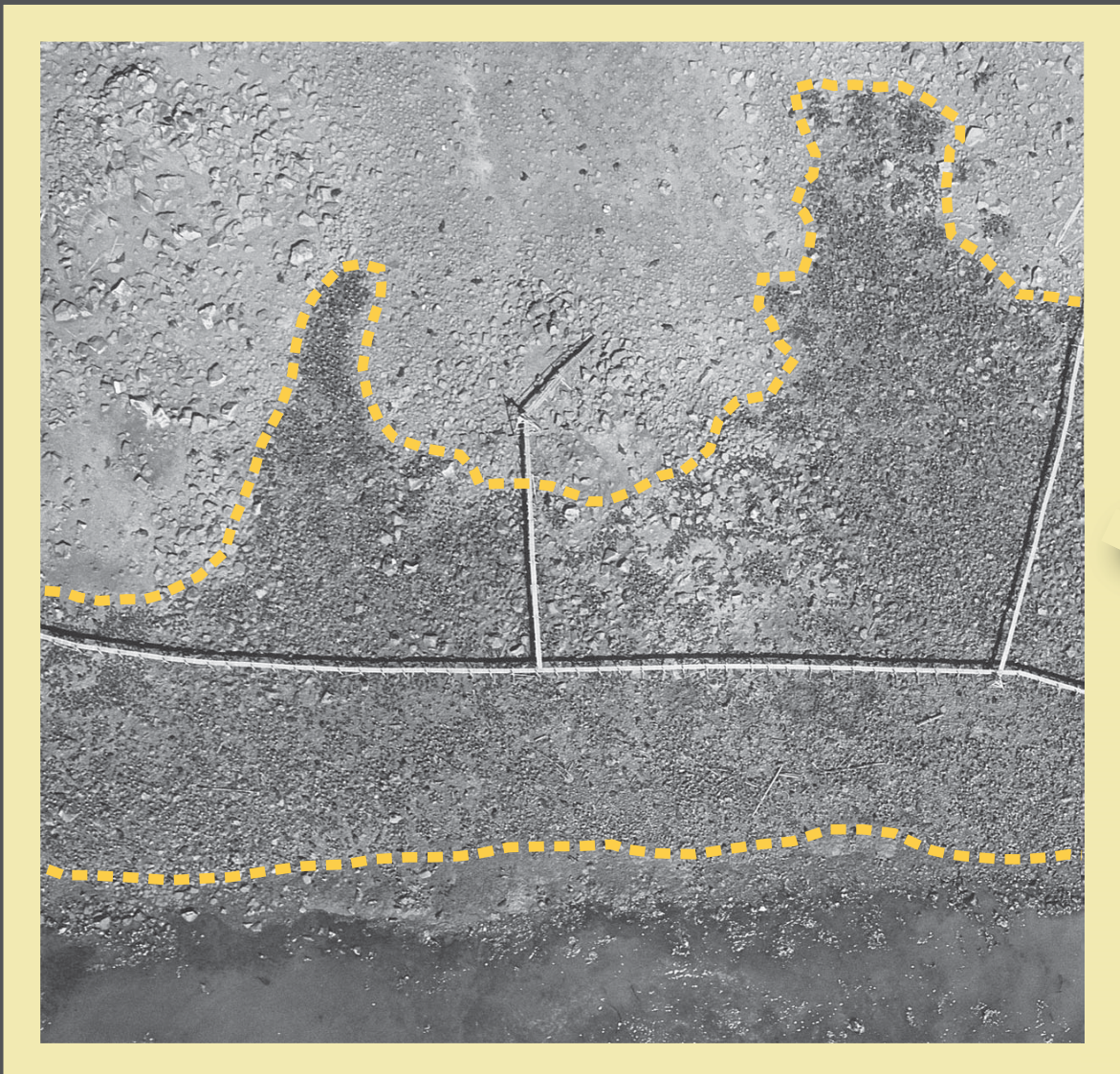
Population Changes in Northern Fur Seal Rookeries at Reef Rookery on St. Paul Island of the Pribilof Islands, Alaska

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An adult male northern fur seal at Zapadni Rookery.



Darker areas, outlined in orange, indicate northern fur seals at Reef Rookery in 1948.



A territorial, adult male (far left) and harem of adult females (behind) and newborn pups (front) at Kitovi Rookery.



The northern fur seal (*Callorhinus ursinus*)

Northern fur seals are found in the North Pacific and Bering Sea. They forage on a variety of fish and squid, occasionally at depths exceeding 200 m (656 ft). Newborn fur seal pups weigh about 4.5-5.5 kg (10-12 lbs), adult females are approximately 30-50 kg (66-110 lbs), and the weight of mature males ranges from 185-271 kg (409-606 lbs). Their rich pelt led to the commercial harvest of this species, starting in the 1700s and ending in 1984. Historically, pelagic sealing and harvests of females have caused significant fluctuations in the world population of this species.

Rookeries (breeding grounds) on St. Paul Island, Alaska

Northern fur seals spend a majority of the year at sea. They occupy breeding colonies from May through November; most births occur in late June and early July. There are breeding colonies on islands in Russia and the United States. The largest portion of the worldwide population returns to the Pribilof Islands in the southern Bering Sea during the breeding season. There are 20 breeding grounds, or rookeries, found on the Pribilof Islands: 14 rookeries on St. Paul Island and 6 rookeries on St. George Island. After wintering at sea, seals show a strong tendency to return to the rookeries where they were born.

Changes in population size

Owing largely to pelagic sealing, the population of fur seals dropped to an extreme low in the early 20th century. International protection allowed the population to increase and the Pribilof Islands population reached a peak, of approximately 2.2 million, lasting through the 1940s to the early 1950s. Following this peak, an overall decline has been observed (Fig. 1) only partially explained by a commercial harvest of females (1956-1968). In 1988, the northern fur seal was designated as "depleted" under the Marine Mammal Protection Act because population levels continued to decline and reached levels less than 50% of those observed in the late 1950s despite the absence of commercial harvesting. The decline appears to continue as the fur seals' ecosystem changes.

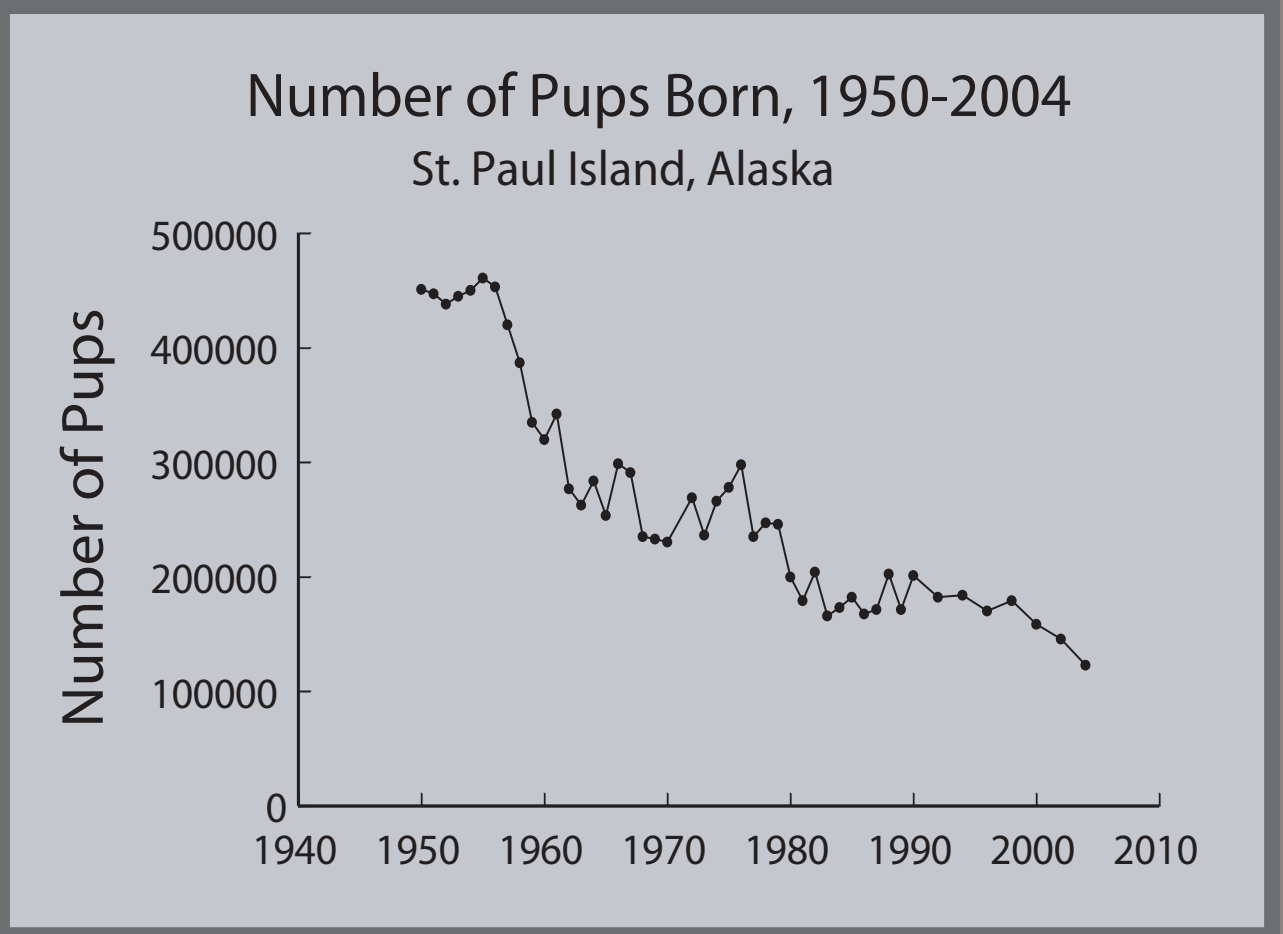


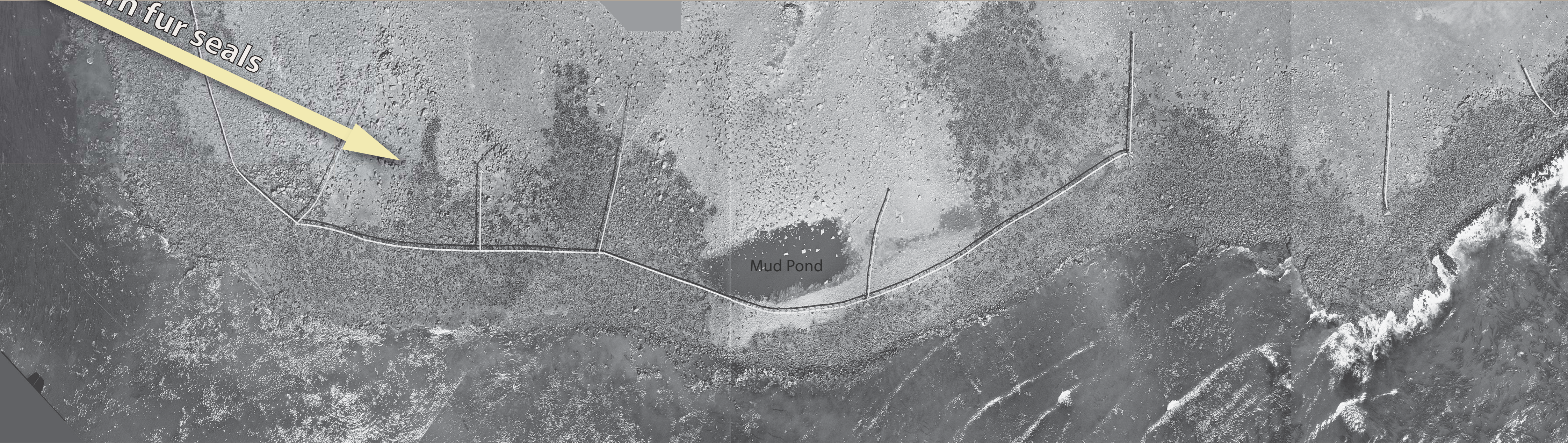
Figure 1. The number of pups born during 1950-2004 based on estimates from St. Paul Island, Alaska. These changes are documented photographically in aerial photos of the rookeries to the right.

References

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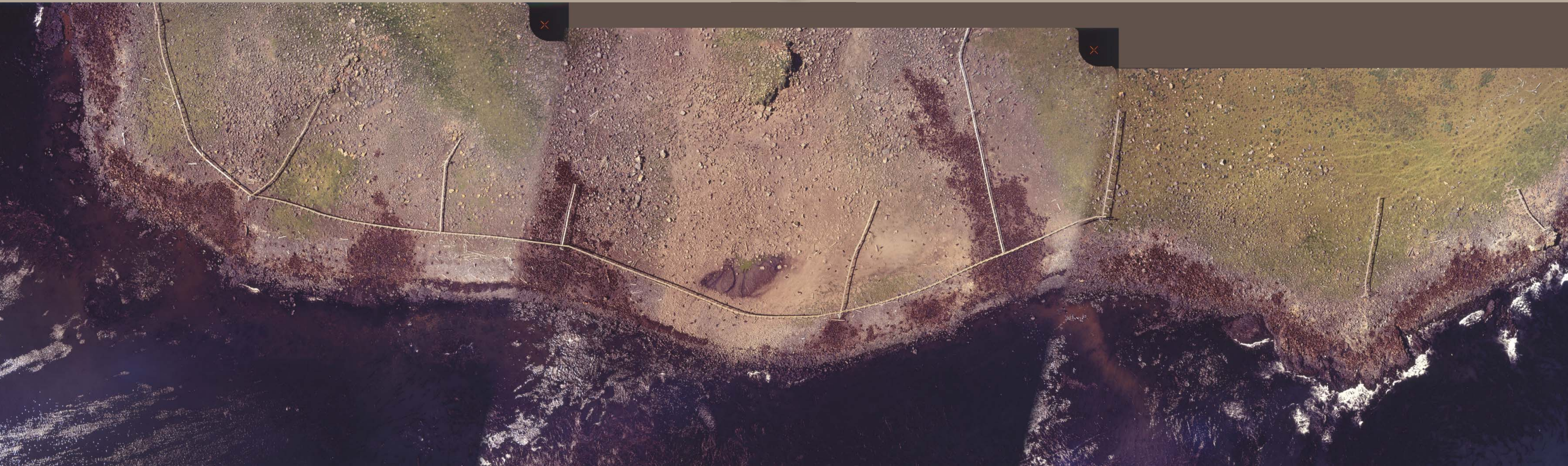
Reef Rookery

Northern fur seals



1948

Photo by V.B. Scheffer & K.W. Kenyon
July 15, 1948; 1200 ft.



1967

Photo by Unknown
July 8, 1967; 800 ft.



1988

Photo by M.S. Lowry
July 13, 1988; 700 ft.

Three aerial photographs taken from an airplane at 1200 ft, 800 ft, and 700 ft, respectively, above Reef Rookery on St. Paul Island, Alaska during the breeding season. The darker areas near the rocky shoreline are groups of northern fur seals; the series of photos show the change in the seal population from 1948 to 1967 and 1988. White lines that run roughly parallel to the shoreline are catwalks used by researchers to safely study the seals with minimal disturbance to the seals. A mud pond (center) is also visible, showing a change in size and depth over the 40-year period.