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# General Information on the Walrus in the Bering Strait Region

The literature, as well as personal observations, indicates that a definite, though rather erratic, seasonal migration of walrus occurs. The animals go east as far as Point Barrow, or rarely a little farther, and then return in the fall to winter along the edge of the ice pack in the Bering Sea. August in the best walrus month at Point Barrow, so it is after this time that those found at the eastern limits of their range migrate southwest through Bering Strait. Little is known by us of the seasonal behavior of walrus along the coast of Siberia at the present time. Important hauling-out places were formerly found along the coast of Northeastern Siberia, but little information on these is available in recent years. Our only reference here on the walrus in Russia (Opredelitel' mlekopitaiushchikh SSSR, by Bobrinskii, Kuznetzov, and Kuziakin (page 167), Moscow, 1944) does not give detailed information on the important points involved.

Our knowledge of mammal species occurring on St. Lawrence Island clearly supports the occurrence of Siberian species there, brought over by sea currents, probably on floating ice. We have also good evidence for this from the study of certain diseases. The climatological Branch, U. S. Weather Bureau, has made available to us all data on prevailing winds from the 12 months of 1950; there is a wide variation from month to month, but the most important direction (recorded for 6 months of the year) is NNE. SSW winds also occur commonly. From Naval hydrographic charts, currents for the months of August, September, and October, 1951, were determined. The drift during these months originated from the southwest, passing in the general direction of Nome from Nunivak Island, and thence through the Bering Strait. There was a segment of this, however, which turned back along the coast of Siberia, toward the southwest. There was in general a loop-like movement, and there is little doubt but that such movement would carry floating objects from Siberia to St. Lawrence Island.

It must be assumed that the walrus, at time of death, sank to the bottom of the sea, where they remained until gas production attending decomposition caused them to rise to the surface. The length of time required for this would depend upon sea temperatures and other factors, of which we have no detailed knowledge. The thick subcutaneous fat layer of the walrus would retain body heat for a considerable time, accelerating the rate of decomposition.

Mortality of epizootic proporàion in the walrus is hitherto unknown. Our investigations of animal disease in Alaska, carried on since 1948, and a review of the literature, has failed to disclose anything even remotely comparable to this occurrence. We do not consider it at all probable that the walrus is ever subject to enzootic or epizootic disease.

From Lieutenant Schiller's data, it would seem that a single herd of walrus was affected by the lethal factor. Assuming that it was some type of explosion, it seems most likely that this occurred in or very near the herd of animals. It seems probable that the herd was hauled out either upon the shore itself, or upon shore ice. Evidence does not point to any submarine explosion.







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Other marine mammals, particularly several species of seals, occur in good numbers in these waters, but none floated in with the walrus. Nothing unusual in the way of marine invertebrates was noted, as would have been the case in the event of a submarine explosion. The eskimo of the Island are familiar with natural conditions and would have noticed any unusual occurrences in this regard.

The fact that the entire walrus body gave a relatively high reading would clearly support the hypothesis that the walrus were killed directly by concussion, since the radioactivity was relatively slight in the bones, as would be expected if the animal were not subjected to prolonged exposure. The deep subcutaneous fat layer, together with the great volume of soft tissue present, probably would prevent much penetration to the deeper structures at the immediate time of the explosion.

/s/
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