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DYNAMICS OF COASTAL WALRUS ROOKERIES IN CONNECTION WITH DISTRIBUTION AND NUMBERS OF WALRUSES

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An interesting biological trait of Pacific walruses is their capacity to form coastal rookeries (Suvorov, 1914; Arsen'ev, 1927; Karaev, 1926, etc.). Initial data on the causes for the formation of rookeries are found in Smirnov (1908), Mineev (1935), Nikulin (1947), and Tsalkin (1937).

The dynamics of walrus rookeries were first studied by Nikulin (1947), who carried out observations in the Inchoun rookery from August to the middle of October 1941.

Twenty years later, Yablokov and Bel'kovich (1962) described Rudder rookery in detail, indicating periods during which it functions, some causes for formation of rookeries and also descriptions of dynamics of the rookery and behavior of the walruses on the shore.

Krylov, who carried out prolonged observations on this rookery in 1963, published an analysis of its age-sex composition (Krylov, 1966).

The present article contains data on the age-sex composition of the walrus rookeries, fluctuations of their numbers, and patterns of their formation. On this basis, a general evaluation of numbers of the Pacific walrus herd is given.

My own material on Rudder rookery made in 1960, 1962, 1964 and 1965), on Inchoun rookery in 1962 and 1965, and on the Blossom rookery in 1964 are used in this article; also included are data given by the inspectors and ichthyologists of the Okhotsk State fish factory and the observations of the meteorologist V. Shatov in Blossom rookery (1964), etc.

Rookeries on Kosa-Meechkyn Island. Meechkyn Island is essentially a sandbar extending to the east of the entrance into Krest Gulf; the length of the island is about 80 km from west to east and its width is not more than 1.5 km. The soil of the island is covered with pebbles and sand with grass growing in places. The Meechkyn rookery was first mentioned by Karaev (1926) who named it and described it as a stable rookery. Arsen'ev (1927) also described it as a stable rookery where walruses can be found from April to December.

According to Zenkovich (1938), 3,000–5,000 walruses are found in the Meechkyn stable rookery. Nikulin (1941) also considered this rookery as stable, mentioning that walruses were found here in the warm fall of 1934 and also from 1937–1939. On a map in 1939, Nikulin marked two places of the appearance of walruses: one closer to the eastern tip of the island and the other closer to the western tip.

In 1960 the walrus lay on the western side of the sandbar, and hunters from the villages of Konergino and Uel'kal' captured them near the rookeries by flocking them together on the rookery. Animals which went into the water were surrounded by the hunters with four whale boats and driven to the rookery. Some specimens managed to escape, but most were surrounded. The walrus were then driven toward the coast to shallow water, where the hunters singled out small groups (30-40) in the shallowest section and began shooting them. They managed to hit some of the animals with harpoons, while drowned animals were easily hoisted from the bottom.

The western rookery was functioning in 1962. In the middle of July 1965 about 4,000 walrus appeared on the sandbar, where they stayed until mid-August when they were driven away by sailors of the sealing launch. In 1965 the walrus rookery of Kosa-Meechkyn Island formed on 20-22 July at a time when the numbers of walrus considerably decreased in Rudder rookery. Obviously, isolated walrus had moved from Rudder rookery to Meechkyn rookery.

According to Vinokurov (inspector of the Okhotsk State fish factory), hunters from Uel'kal' catch walrus from Meechkyn rookery almost every year. In this rookery, as in Rudder rookery, are found walrus living in the Gulf of Anadyr. The Meechkyn rookery is therefore stable.

Rudder rookery. This rookery was mentioned by Arsen'ev (1927) under the name "Malyi Retikan." Walrus were recorded in this rookery by Nikulin (1941) in the fall of 1934 and from 1937-1939. Zenkovich (1938) regards Rudder rookery as a stable rookery with 2,000-3,000 walrus. Menovshchikov (1959) considers this rookery as most important for hunting walrus.

Rudder rookery is situated in the Gulf of Anadyr, occupying the extremity of the Red'kin sandbar; it is 18 km long from the southeast to the northwest, while its width varies from 150 m to 2 km. On the southeast the sandbar is washed by the Gulf of Anadyr; Rudder Inlet is situated to the northeast.

The soil is mainly pebbly with a mixture of sand. In the broad and elevated section of the sandbar one sees tundra vegetation; small lakes appearing in the lowland after the snow melts do not dry up even in summer. There are also springs. The northwestern part of the sandbar is devoid of vegetation and is covered with fine pebbles mixed with a small amount of sand. Here the walrus form their rookeries. During storms waves wash the sandbar and remove debris, while logs, planks, etc., thrown by the sea, abundantly litter the broad part of the sandbar. Rudder rookery is considered well studied. It usually begins to function at the end of June and early July after the ice melts or drifts away. If the ice floes are carried far to the south, small numbers of walrus appear in the rookery; however, if ice floes approach the rookery, the walrus leave it again. In 1965 the walrus first appeared in the rookery in the first days of June, then left the rookery, and finally settled in it only on 7 July.

The walrus usually appear in small groups. Constant motion is observed in the rookery; some walrus appear, others go to feed; some walrus sleep, while others are awake. The animals often fight. It was observed that walrus may stay in the rookery for several days without going into water. Tagged walrus were seen in the same place for three consecutive days.

In spite of daily fluctuations in numbers, there is a certain pattern in the population dynamics of the rookery; these dynamics are largely determined by seasonal changes in meteorological conditions.

A regular and gradual increase in the number of walrus begins at the end of June and continues until the last third of July. At this period their numbers do not exceed 3,000 heads. A maximum number of animals (up to 5,500) is observed from the end of July till the first half of August. In September, the number of walrus decreases to 2,500–3,000. After mid-October walrus hardly approach the rookery.

The Rudder rookery is characterized by being exclusively occupied by males. Nevertheless, it is interesting to point out that some females stay during summer in the Gulf of Anadyr where the rookery is situated.

Up until 1965, intensive hunting was carried out in Rudder rookery (Menovshchikov, 1959). Hunters would come to this rookery not only from the adjacent villages (Enmelen and Ninligran), but even from Sireniki and Chaplino villages. The walrus were speared and towed with whale boats to a killing site on the sandbar 2 km southeast of the rookery or on the opposite coast of Rudder Inlet. The bones were heaped in piles, and the flesh stored in special pits littered with whale bones.

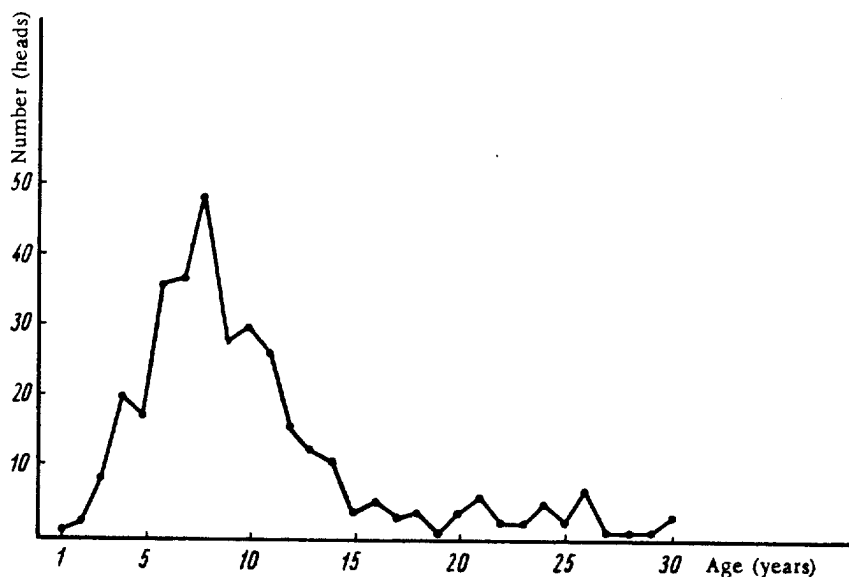


FIGURE 1. Age composition of walrus in Rudder rookery

From these skeletal remains, 348 skulls were collected to determine the age of walrus according to their teeth. This material constitutes a summary sample of the walrus killed in 1937–1956. Since it represents the age composition of the walrus killed in the rookery during 20 years, we were able to estimate the age composition of the rookery (Figure 1). The killed animals mainly were 7- to 11-years old. Four- to 6-year-old walrus prevail among the immature ones. Immature specimens from 1 to 6 years old comprise 24% of the whole sample. The sample includes very few walrus older than 14 years. This may be explained to some

extent by the fact that hunters do not kill very old walruses because of the low quality of their flesh.

Arakamchechen rookery. This rookery is situated on the island of the same name in the southern part of Bering Strait; it occupies a pebbly-sandy section of the lowland shore on the northern side of the island, east of Cape Olen'ii. This rookery is not stable.

Arsen'ev (1927) reports that the Arakamchechen rookery disappeared in 1914, but already in 1931 Razumovskii wrote: "In the Arakamchechen rookery are found a group of walruses, constituting a part of the Bering Sea herd, which comes to this island during the period of rookery occupation." Nikulin (1941) also observed walruses in this rookery in the fall of 1934; like Razumovskii, he believes that this rookery is occupied in fall by walruses which summer in the Bering Sea. Zenkovich (1938) considers this rookery a stable one and estimates that its walrus population is 5,000–8,000 animals.

Our data show that the Arakamchechen rookery forms only in years with a warm fall or when the approach of ice floes from Chukchi Sea is delayed.

Hunters reported that on 2 November 1960, 300 walruses appeared in the rookery, and about 500 on 4 November. As the ice floes approached the rookery, the walruses (especially the old males) deserted it. The rookery remained empty from 1961 to 1963. In the middle of September 1964, 1,000 walruses settled in the rookery and stayed there until the first days of October. We do not know when this rookery dispersed.

Almost nothing is known on the sex ratio of the population of Arakamchechen rookery.

Inchoun rookery. This is one of the largest rookeries; it is situated on Cape Intsov in Chukchi Sea, 2 km east of Inchoun village. The rookery itself consists of a pebble-covered beach strip washed by the sea on the north and bordered by steep cliffs on the south. This beach strip is bordered by a cliff on the east, and it gradually tapers to a point on the west. Vertical cliffs project farther into the sea on the side of the village.

The rookery is well-protected against southerly winds; however, when 3 or 4 point northern storms blow, strong breakers sweep the rookery, and waves inundate the entire pebble-covered strip. Therefore, even small storms drive away most (sometimes all) the walruses from the rookery. The length of the rookery is 450–500 m, its maximum width is 70 m.

When the number of walruses is small, the broadest (eastern) part of the rookery is occupied; the whole width of the pebble-covered strip is not occupied, and a strip 20–30 m wide is left free near the rocks. This is most probably caused by the rock fall which frightens the animals and wounds them. With large concentrations of walruses, the rookery is fully occupied. In such a case, females and young animals are observed together (except for females with pups); the walruses lie very close to one another.

The Inchoun rookery is situated along the route of fall migration of the walruses into Bering Sea; it serves as a place of temporary rest. This rookery functions more often than the Arakamchechen rookery; however, in years with a complicated ice landscape, the walruses do not appear at all in the rookery. In the summer of such years, ice floes always persist near the rookery, onto which emerge the walruses. Arsen'ev (1927) considers this rookery as temporary. However, Zenkovich (1938) regarded it as

stable with an annual walrus population of 3,000–5,000. Nikulin (1947) carried out observations on the population dynamics of the rookery from 8 August to 10 October 1941, he found that intensive occupation of the rookery begins in the middle of September; toward 10 October the number of walruses reached 8,000.

In the 1930s the rookery was stable with more than a thousand walruses (Belopol'skii, 1939). Depending on the weather, the first walruses appear in the rookery in August, more often in September. At first the old males approach the rookery, then appear adult females and young walruses; from October females with pups approach. This can be explained only by physical characteristics of the animals: it is difficult for females with pups to cover the huge distances separating the rookeries from the floating ice floes. On 4 October 1962 we observed a group of walruses approaching the rookery from the northwest. Some of the animals were so exhausted that they could not get out of the water into the rookery, but stayed in the surf strip, thrusting their tusks into the ground. Having rested, they climbed with difficulty onto the shore and lay motionless for a long time.

At the peak of the fall migration, up to 8,000 walruses appear in the rookery; if the number of animals staying in water is counted, their number exceeds 10,000. The rookery fills up very quickly. Thus, there were about 6,000 walruses in the rookery in the afternoon of 4 October 1962; they occupied two-thirds of the accessible area in the eastern part of the rookery. Groups of 30–50 animals each would constantly approach the rookery and occupy the free space. Simultaneously, smaller numbers of walruses, which had rested, left the rookery in the east on the side of Uelen. By the morning of 5 October the entire rookery was occupied. Animals which found no room on the coast climbed onto stones and conical rocks; the rest swam in small groups or slept in the water. According to our calculations, there were more than 10,000 walruses in the rookery on that day.

We observed cases of natural mortality of old walruses; in the eastern part of the rookery near the southern cliffs, we found 8 walrus corpses, six of them males of the "shishkar"* stage, which on examination showed no signs of violent death. The live walruses did not notice the corpses.

When the rookery was densely populated fights were observed among the walruses. Many specimens had fresh wounds on the neck. We found walruses with freshly broken tusks.

However, the rookery is not full of walruses every year. In certain years, when ice floes appear, a maximum of 2,000–3,000 walruses appear in the rookery, for example, in 1965 when the summer was very cold and there were ice floes near the shore almost all the time. In the last third of August the ice floes drifted north and about 6,000–8,000 walruses appeared in the rookery. However, ice floes reappeared after several days, and the rookery was again deserted. This phenomenon was repeated in mid-September; however, since very thick ice floes approached the rookery from the north in this case, the walruses went toward Bering Strait; passing Cape Dezhnev, 6,000–7,000 walruses emerged on Pouten sandbar where no rookery had been observed previously. They were observed there by workers of the Chukchi fish inspection staff.

Blossom rookery. This rookery was first mentioned by Bel'kovich and Yablokov (1961). Nikulin (1941) gives the following general information:

* ["Shishkar" — males with bosses on the chest, neck and shoulders.]

"Winter workers and hunters reported that in 1937 and 1938 they saw huge coastal rookeries of walruses with more than 2,000-3,000 animals in four sites on the island."

Our description of Blossom rookery (from 1952 to 1960) is based on data given by Makarevich (1960), an inspector of the Okhotsk State fish factory. The rookery consists of a pebbly sandbar whose narrow end penetrates the sea in the west; the width of the rookery is 150-200 m and its length 300-400 m. A pebbly alluvial bar goes out from the rookery in the north, separating a lagoon from the sea. During southern and southeastern storms the walruses occupy the northern side of the rookery or go onto the beach of the lagoon. To the east of the rookery extends a lowland sandy strip along the coast of the island.

In 1956-1957, walruses appeared on the ice floes near the rookery; however, the animals did not emerge onto the coast. On 7 September 1958 the walruses appeared to the southwest of Cape Blossom and stayed in the water near the rookery. On 8 September, more than 100 walruses emerged onto the coast for the first time. After they had left the rookery, more than 10 corpses were found, 5 of them being young walruses without tusks. Many had wounds inflicted by tusks. On 20 September, about 5,000 walruses emerged on to the coast and a like number stayed in the water. On 24 September 18 walrus corpses were discharged from the sea onto the southeastern coast; already by 10 October about 50 corpses were found (several females with pups, and the rest "shishkar" males). The number of walruses in the rookery gradually decreased; the last walruses deserted the rookery at the end of October.

In 1959, up to 25,000 walruses arrived in the rookery; on the last days of October 1960 the workers of the polar station counted around 50,000 animals. However, this figure is exaggerated, since Fedoseev (1966), who made aerial photographs of Blossom rookery, counted 23,500 walruses on 29 September 1960, 14,500 on 10 October, and 15,000 walruses on 12 October.

In September 1962, Captain Uvarov on board the "Zhitomir," which was passing near the rookery, observed through binoculars more than 200 walruses lying on the shore. Walruses did not occupy this rookery in 1963.

On 31 August and 1 September 1964 a strong southern wind freed Long Strait of ice. We found about 500 walrus corpses in the rookery.

The first walruses appeared on the northern side of the sandbar on 4 September. On 5 September, the rookeries were mainly occupied by males (350-400 heads). Among them we found a female with a suckling pup. On the evening of the same day the rookery was approached by large groups of walruses; on 7 September there were approximately 13,000 animals; on 8 September we observed the rookery with binoculars from a lighthouse; we counted 68 corpses; most of them had wounds on the neck and head and were bleeding. They had apparently been wounded by hunters.

The numbers of walruses continued to increase; by 20 September there were 33,000-35,000. The whole lowland section of the sandbar was occupied. At the end of September the number of walruses began to decrease gradually. A sharp temperature drop (from -3 to -12°C) took place on the night of 5-6 October. All the walruses went into the water. As the weather warmed, the walruses started to reappear in the rookery, but no more than 3,000 heads were observed. Less than 100 walruses were counted on

23 October when observations were discontinued. Probably, the last walrus left at the beginning of November. From 250 to 300 walrus died on the rookery in this season.

CAUSES FOR THE FORMATION OF ROOKERIES

There are various assumptions on the causes for the formation of walrus rookeries. Smirnov (1908) was of the opinion that walrus prefer resting on the coast than on ice. Leonov and Nikulin considered the rookeries to be resting places during the fall migrations. Nikulin (1947) wrote that: "The specific weight of the walrus is greater than the specific weight of water; the walrus floats on water by making movements or by inflating its air sacks."

In our opinion, walrus prefer ice in any case. On the ice they have no enemies, whereas in the rookery the walrus have to be careful and go into the water when approached by an unknown object; on the other hand, ice rookeries can be reached directly by boats. Apparently, the walrus come into the rookery only when the ice floes drift far away from regions of food or disappear (as they do in the Gulf of Anadyr). The walrus never come onto the shore when there are ice floes in the vicinity.

The walrus form rookeries mainly in fall during their southward migration; they stay there until the first ice floes approach. If ice floes are late in approaching, the walrus leave the rookeries only at the beginning of intensive formation of young ice or slush ice; this was confirmed by observations in Blossom and Rudder rookeries. In such years the fall migration from Chukchi and Bering seas is protracted, and the last walrus pass Bering Strait in November.

In years with a cold summer, when Long Strait and the southern regions of Chukchi Sea are clogged with ice, the walrus leave Chukchi Sea early and form rookeries in Bering Strait (as in the fall of 1965). It appears as though they "fear" to be separated by the ice from their wintering sites. The walrus left Chukchi Sea as early as September and formed a rookery near the Pouten lagoon. The same occurs with the Anadyr walrus herd which bases itself on the Rudder and Meechkyn rookeries. With the onset of frosty days the walrus begin to migrate in the direction of Bering Strait toward the pack ice; in the absence of ice the walrus form a rookery on Arakamchechen Island.

On the basis of the above given material on the population dynamics of the main and largest rookeries, we propose to divide the rookeries into two arbitrary types.

1) Stable rookeries which function every year and serve as the permanent habitat of a definite group of walrus in the summer-fall period. Such rookeries are found near regions abounding in food. Rudder and Meechkyn rookeries are stable.

2) Temporary rookeries, used by walrus as places for temporary rest, whose formation depends upon the ice landscape during the fall migrations. All the remaining rookeries belong to this type.

The temporary rookeries can also be divided into two types: regular and accidental ones.

The Arakamchechen, Inchoun, Kolyuchinsko [Kolyuchin Island] and Blossom rookeries, as well as the rookeries on Cape Serdtse-Kamen', Gerald and Idlidlya islands, all belong to the first type.

Accidental rookeries form in waters with a warm fall when ice floes are carried far northward and walrus appear on any section of the coast. Sometimes such rookeries function only for a single season and then disappear for many years, such as the Uelen and Dezhnev rookeries, the Pouten rookery on Karpkarpka Island, the rookery of Cape Shelagskii, etc. The number of walrus of these rookeries is, as a rule, small.

DETERMINING NUMBERS OF WALRUSES ACCORDING TO THE DEGREE OF OCCUPATION OF THE ROOKERIES

Observations on rookeries in certain iceless years enabled us to make estimations of the numbers of the herd, provided such estimations are made during a short time. The table below indicates the rookeries formed in the fall of 1964 and numbers of walrus in these rookeries.

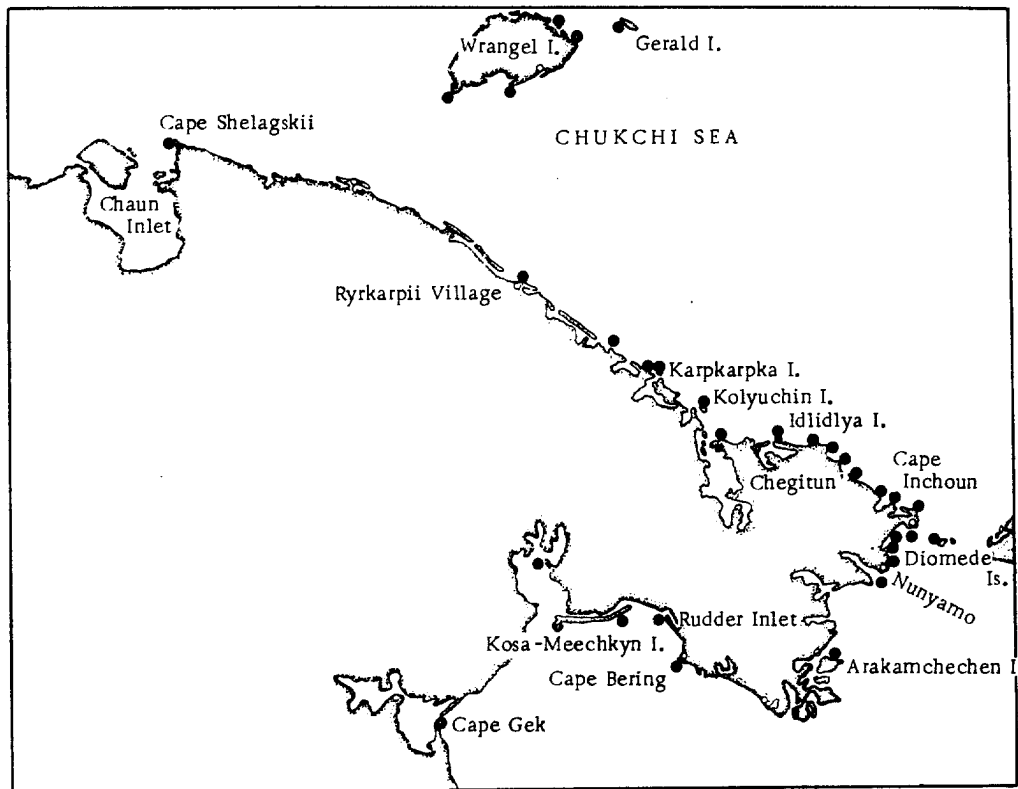


FIGURE 2. Distribution of walrus rookeries in September 1964

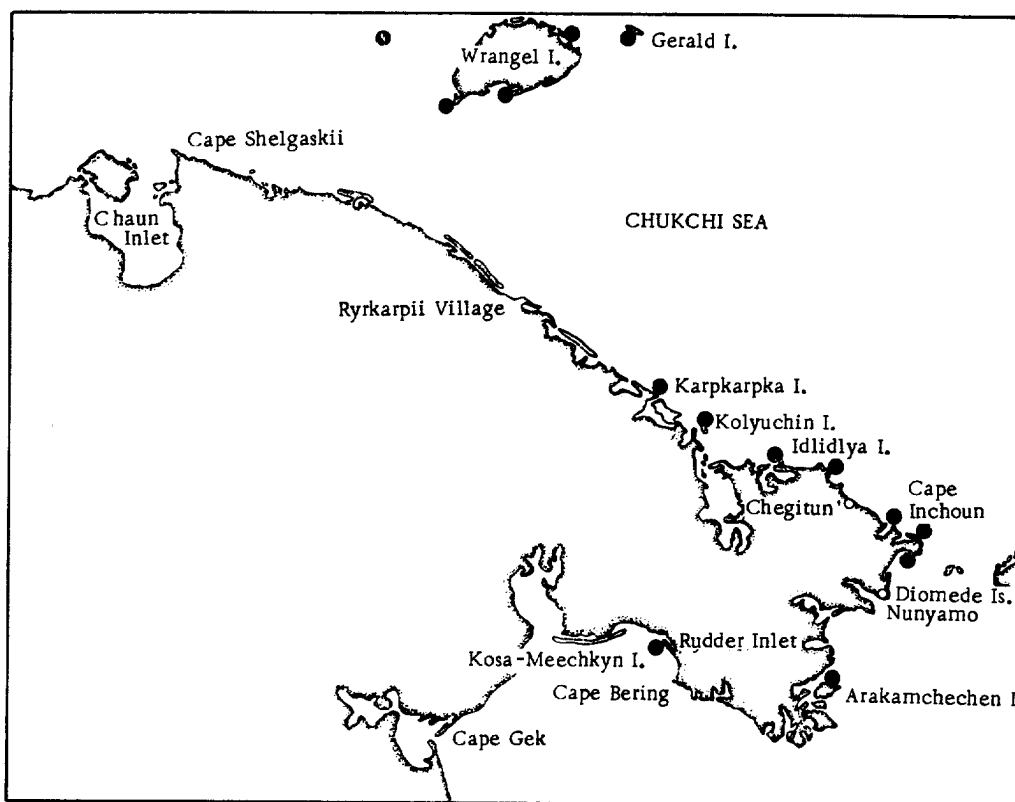


FIGURE 3. Walrus rookeries recorded between the years 1925–1965

Numbers of walrus on the coastal rookeries in the second half of September 1964

Date of observation	Rookery	Location	Number of walrus (heads)
1964			
September			
26	Blossom	Cape Blossom, on Wrangel Island	33,000–55,000
18	Davydov Sandbar	On Wrangel Island	300
25	Severnoe	On Mushtakov Sandbar, northern coast of Wrangel Island	300
25	Gerald Island	On Gerald Island, in Chukchi Sea	1,500–2,000
18	Karpkarpka Island	Island near Vankarem Village on	600
29	Kolyuchinskoe	Kolyuchin Island	1,500
30	Serdtshe-Kamen' Cape	On Cape Serdtshe-Kamen', near the Enurmino Village	300
30	Inchoun	On Cape Intsov, near Inchoun Village	4,000–5,000
October			
1	Dezhnevskoe	On a sandbar near the old Dezhnevo settlement	150
End of September	Uelenskoe	To the east of Uelen Village, below the lighthouse	150
September	Arakamchechenskoe	Arakamchechen Island	1,500
15	Rudderskoe	On a sandbar near Rudder Inlet	2,000–2,500
15–25		On ice deposits to the northwest of Wrangel Island	1,700
23–25			
Total			47,300–51,300

APPENDIX. List of recorded rookeries and their present condition

No.	Rookery	Location	Condition of rookery
Gulf of Anadyr			
1	Near Cape Geka	Anadyr Estuary	Extinct
2	Meechkyn, western and eastern rookeries	Near the entrance into Krest Bay	Stable
3	On the Enul' sandbar	In Krest Gulf	Extinct
4	Rudder rookery	On Red'kin sandbar	Stable
5	Near Cape Bering	On Cape Bering	Extinct
Bering Strait			
6	Arakamchechen	On Arakamchechen Island, in Bering Strait	Temporary
7	On islands in St. Lawrence Bay	Bering Strait	Extinct
8	On Cape Chini	Ditto	"
9	Tunitlen	"	"
10	Pouten	On a sandbar near Pouten Lagoon	Temporary
11	Dezhnev	On a sandbar near the old village on Cape Dezhnev	"
12	On Ratmanov [Big Diomedé] Island	Bering Strait, Diomedé Islands	Extinct
Chukchi Sea			
13	Uelen	To the east of Uelen Village	Temporary
14	Inchoun	On Cape Intsov	Temporary
15	Utyan	Near the former Utyan Village, near Cape Intsov	Extinct
16	Chegitun'	Near Chegitun' Village	"
17	Seshan	Near Cape Inkigur	"
18	Serdtsé-Kamen'	On Cape Serdtsé Kamen'	Temporary
19	Enurmin	To the west of Enurmino Village	"
20	Idlidlya	On Idlidlya Island	"
21	Pil'kai (according to Arsen'ev)	Near Kolyuchinskaya Inlet	Extinct
22	Kolyuchin	On Kolyuchin Island	Temporary
23	Vankarem	To the east of the village, near the mouth of Vankarem River	Extinct
24	Karpkarpka	On Karpkarpka Island, opposite Vankarem Village	Temporary
25	Ippat	To the southeast of Amguem River	Extinct
26	Ryrkarpil	Near Cape Ryrkarpil	"
27	Blossom	On Wrangel Island near Cape Blossom	Temporary
28	Davydov	On Wrangel Island, on Davydov sandbar	"
29	On Mushtakov Sandbar	On the northern coast of Wrangel Island	"
30	Near Cape Uering	On the western coast of Wrangel Island	"
31	On Gerald Island	In Chukchi Sea	"
East-Siberian Sea			
32	Shelagskii	On the southern side of Cape Shelagskii	Extinct

Remark. An extinct rookery is one that was not occupied by walruses in recent years.

CONCLUSIONS

The coastal rookeries of walruses are of two types: temporary and stable; they are used by the walruses as resting places. They form when there are no ice floes. The number of rookeries, number of walruses and the time they spend on them depends on the ice conditions. In years with a warm summer when the ice floes are carried far northward, the walruses form numerous rookeries. In such periods one can very accurately count walruses in the rookery either visually or by means of aerial photographs.

According to visual counts in 1964, walruses numbered 47,000–51,000 in the rookeries.

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DYNAMICS OF COASTAL WALRUS ROOKERIES IN
CONNECTION WITH DISTRIBUTION AND NUMBERS
OF WALRUSES

V. N. Gol'tsev

Magadan Branch of TINRO

An interesting biological trait of Pacific walruses is their capacity to form coastal rookeries (Suvorov, 1914; Arsen'ev, 1927; Karaev, 1926, etc.). Initial data on the causes for the formation of rookeries are found in Smirnov (1908), Mineev (1935), Nikulin (1947), and Tsalkin (1937).

The dynamics of walrus rookeries were first studied by Nikulin (1947), who carried out observations in the Inchoun rookery from August to the middle of October 1941.

Twenty years later, Yablokov and Bel'kovich (1962) described Rudder rookery in detail, indicating periods during which it functions, some causes for formation of rookeries and also descriptions of dynamics of the rookery and behavior of the walruses on the shore.

Krylov, who carried out prolonged observations on this rookery in 1963, published an analysis of its age-sex composition (Krylov, 1966).

The present article contains data on the age-sex composition of the walrus rookeries, fluctuations of their numbers, and patterns of their formation. On this basis, a general evaluation of numbers of the Pacific walrus herd is given.

My own material on Rudder rookery made in 1960, 1962, 1964 and 1965), on Inchoun rookery in 1962 and 1965, and on the Blossom rookery in 1964 are used in this article; also included are data given by the inspectors and ichthyologists of the Okhotsk State fish factory and the observations of the meteorologist V. Shatov in Blossom rookery (1964), etc.

Rookeries on Kosa-Meechkin Island. Meechkin Island is essentially a sandbar extending to the east of the entrance into Krest Gulf; the length of the island is about 80 km from west to east and its width is not more than 1.5 km. The soil of the island is covered with pebbles and sand with grass growing in places. The Meechkin rookery was first mentioned by Karaev (1926) who named it and described it as a stable rookery. Arsen'ev (1927) also described it as a stable rookery where walruses can be found from April to December.

According to Zenkovich (1938), 3,000-5,000 walruses are found in the Meechkin stable rookery. Nikulin (1941) also considered this rookery as stable, mentioning that walruses were found here in the warm fall of 1934 and also from 1937-1939. On a map in 1939, Nikulin marked two places of the appearance of walruses: one closer to the eastern tip of the island and the other closer to the western tip.

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