OBSERVATIONS ON MEDNY AND BERING ISLANDS, KAMCHATKA, U.S.S.R., IN JULY 1961

Ford Wilke
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Bureau of Commercial Fisheries
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SUMMARY

Medny Island and Bering Island in the Komandorskie group each have one fur seal rookery of about 400 harems and one small, recently re-established rookery of 35 to 55 harems. Rookeries and hauling grounds on Medny Island are located at the foot of high, steep slopes which allow little room for work such as sealing and tagging. The main Bering Island rookery, North, is located on terrain that will permit sealing operations similar to those practiced on the Pribilof Islands. Soviet biologists report that their seal herds have increased during the late 1950's.

Two to three thousand male seals have been taken in recent years. Under present management and protection, the numberavailable will increase. Whether or not this number will reach the level of the late 1800's, when an average of 37,000 were taken annually for 20 years, cannot be forecast. Observations of the small, growing Commander Island herds are potentially of value in understanding the behavior of the large Pribilof Island population which is believed to have exceeded the optimum level.

In the first three seal kills on Medny Island, 27 United States tags and 54 Soviet tags were taken. The proportion of United States tags is high because Soviet tags are available only from 2- and 3-year-old seals but the kills ranged from 45 to 74 percent 4- and 5-year-old animals.

A sample of thirty 3-year-old seals from Medny Island was 7 centimeters longer on the average than were thirty from St. Paul Island taken on the same day. The difference can result from better growth or selection in killing.

Sealskins are blubbered on wooden beams and cured twice in salt kenches. They are barrelled for shipment to Leningrad for processing.

INTRODUCTION

Exchange of scientists was provided for by the Interim Convention on Conservation of North Pacific Fur Seals which became effective in 1957. The arrangements for specific exchanges were to be made by the countries involved. Facilities on Robben Island were prepared for visitors in 1960. Dr. V. B. Scheffer and Eugene M. Maltzeff of the United States and Mr. Fukuzo Nagasaki and Shun Murakawa of Japan visited there in the late summer of 1960. The Soviet Government announced at the 4th meeting of the North Pacific Fur Seal Commission that visitors could be received on the Commander Islands in 1961. The following pages give an account of a visit there, the first by United States citizens since 1938.

The American delegation to the Commander Islands (Ostrova Komandorskie) consisted of Bureau of Commercial Fisheries biologists Ford Wilke, Laboratory Director, Marine Mammal Biological Laboratory; Alton Y. Roppel, Biologist; and Karl Niggol, Biologist and translator. Mr. Karl W. Kenyon, Biologist of the Bureau of Sport Fisheries and Wildlife conducting sea otter and walrus research, was also a member of the group.

The Commander Islands, which are a continuation of the Aleutian Chain, are approximately 770 miles west of the Pribilof Islands and about 280 miles from the city of Petropovlosk on Kamchatka. United States Hydrographic Office charts, which are based on early Russian surveys, are apparently inaccurate. The southern end of Medny Island is about three-fourths of a mile wide instead of two miles as shown on Chart No. 1690. Soviet instructions to Captain Elmer Dow of the vessel Penguin for anchoring would have put the vessel in a reef area off the end of the island. The island appears to be located too far north on the chart, perhaps several miles.

Medny, the southernmost of the two islands, is 30 miles long. It is narrow, averaging about 2 miles in width. The island is approximately 24 miles from the nearest portion of Bering Island. Almost the entire coastline is very steep and the island is mountainous. The highest point is 1,925 feet above sea level.

Bering Island is about 50 miles long and 10 miles wide. It is low at the north end but rises to a maximum height of 2,200 feet in the southern part. The low northern third contains several lakes. One, Saranna Lake, contains about 20 square miles. Its outlet stream supports a salmon run of sockeye and pink salmon, and possibly other species. There are no studies being made on the

fresh-water biology of the salmon runs in the watershed.

Voyage to Commander Islands

At 2030 on 5 July, we boarded the Soviet ship M/V Orel (Eagle) and were assigned comfortable quarters in the ship's 6-bed hospital on the second deck. The bathroom adjacent to our living quarters contained a toilet, wash bowl, and combination bathtub and shower.

A sea-going tug 60 meters (195 feet) in length, the M/V Orel was constructed in Finland in 1957. Including the engine telegraph, some of the equipment on the bridge were made in England. Manned by civilians, the ship patrols waters in the Kamchatka district as a rescue vessel. A heavy-duty winch equipped with a 2-inch steel cable for towing ships at sea was located on the stern. There were no fixed guns on deck and small arms were not observed. Two inboard motor life boats, each with a capacity of about 25 persons, were aboard. Equipment in the wheelhouse appeared not to be in excess of that needed for safe navigation. Observed equipment included gyro and magnetic compasses, depth finder, and radar with the usual variable range selector. We were not permitted to enter the chart room. Though it is conceivable that the chart room

could have contained electronic devices apart from those necessary for operation of the ship, no more than the normal complement of antennaea were observed. It is more likely that this security measure was in force to prevent our access to navigational charts. This conclusion is further supported by the fact that the "no admittance" sign was printed on paper and taped to the door after we went aboard the ship. We estimated the cruising speed of the M/V Orel at about 11 nautical miles per hour; the ship was powered by a 5-cylinder diesel engine and had a 200-volt electrical system. A radio receiver and transmitter were located in the officer's mess.

We ate our meals with the Captain, Supervisory Captain, and Security Officer (see appendix for description) in the Officer's mess on the second deck. A picture of Lenin and one of Mikoyan were on facing walls. The galley was located on the main deck; food was sent up by means of a dumb waiter opening into a small cubicle adjacent to the mess. A waiter served the table from this point. The food, while very oily by American standards, was abundant and otherwise satisfactory.

The Captain and other officers were furnished single cabins. Judging by the number of cabins on the third deck, there were not more than 2 crew members assigned to each. The crew's mess was

located on the third deck adjacent to the galley. One wall displayed individual pictures of members of the Soviet Presidium. Another display featured percentage increase in production of various commodities throughout the USSR.

The officers and men were reasonably clean and well dressed. Cameras and wrist watches were prevalent. Light meters were uncommon, however.

No attempts were made by the Soviets to engage us in political conversation. Two or three of the crew members questioned us at length on the prices of consumer goods in the United States. Everyone was very friendly; in fact, the ship appeared to be run in a happy-go-lucky manner. Except for the chart room, we had free access to all parts of the ship. Movies shown nightly covered the range available in the United States, i.e., musical, drama, ballet, and autobiography.

Station at Medny Island

The ship was anchored off Pereshayak (The Narrows) at the southern end of Copper Island (Ostrov Medny) early in the morning of 9 July after being underway about 77 hours. By 1930, the weather had not improved sufficiently to make landing possible. Seeking

protection, the Captain moved the ship farther north to a small inlet (Bukhta Korabelnaya). The M/V Steregushchi (Guardian), a ship identical to the Orel was anchored here. A pelagic fur seal research vessel, the Krilatka (Ribbon Seal), was also present. The latter had a schooner-type hull.

On 10 July, two Coast Guard officers (see appendix) came aboard from the Krilatka. Shortly after their arrival, the officers examined our passports. On 11 July, the ship returned to the southern end of the island where we and one of the Coast Guard officers were taken ashore. There were no docking facilities and very little protection from the weather, hence the necessity for reasonably calm water.

In order to reach the station at Yurtashka (little buildings), it was necessary to climb 376 steps having a collective elevation of 60 meters (195 feet). Upon our arrival at the top, we were met by several Soviets and the Japanese delegation (see appendix).

Yurtashka consisted of six buildings: one in which was housed the radio room, research laboratory, and small living quarters; two for living quarters, each with kitchen and dining room; one housed a gasoline generator; another was a banya or bath house; and the last a supply building to which were connected outdoor toilet facilities.

Construction of the one-story buildings appeared adequate, with storm windows provided throughout. However, the 220-volt electrical system was routed through surface wiring rather than between the walls. There was carpeting throughout our living quarters; good-quality rugs were hung on some of the walls. The bathroom contained a wash basin and bathtub but no toilet facilities. The Soviets explained to us that the responsible technician neglected to include the necessary pipe among construction materials, although he had provided the fixtures.

Coal was used for cooking and to heat water. The buildings were heated by coal-fired pedchkas. A pedchka is essentially a continuous chimney with a fire box about one foot above floor level. Since it is constructed as part of the wall, a single pedchka radiates heat to adjoining rooms simultaneously. The dining room was unheated.

Water was supplied by gravity flow through a 3-inch surface pipe leading to a source of run-off water approximately 150 yards up the gully from the Yurtashka. The collecting device consisted of a 6-foot wooden trough diverting part of the flow into a 55-gallon steel drum. The pipe was screened where it entered the drum. Although primitive and useless during freezing weather, the method provided excellent water at a satisfactory pressure for the period

needed.

Food and hospitality at Yurtashka was excellent. The food was prepared by a professional cook (see appendix) brought from Petropavlovsk especially for this meeting with American and Japanese. A hostess and maid (see appendix) were also provided.

Biological laboratory space at Yurtashka on Medny Island amounted to about 100 square feet. Furnishings were meager. A brick-covered cooking stove occupied the space in one corner. Along the rear wall was a table which joined another table at right angles along the only window wall. Part of the window wall was used by ceiling-high shelves about 1-1/2 feet wide and 1-1/2 feet deep.

Lack of specialized equipment necessary for such studies as pathology and parasitology indicated that only routine data collections are being made. These included sampling (50 percent) of canine teeth from the kill for age determination, tag recoveries, bull counts, dead pup counts, pup tagging, and general observations. We observed the teeth and tags taken from the 14 July kill.

Although there was a biologist (see appendix) stationed at North Rookery on Bering Island, we did not see his laboratory. According to the Soviet annual fur seal research report, the field work done on Medny Island is duplicated on Bering Island. Whether

specialized studies are done also is unknown.

Voyage to Bering Island

On 12 July, we, the Japanese delegation (Nagasaki and Murakawa), and three Soviets (Dorofeev, Gubenko, and Loken) boarded the M/V Steregushchi for a visit to Bering Island (Ostrov Beringa) rookeries, arriving about midnight. We spent about 3 hours ashore on North Rookery on 13 July, then returned to the ship and were taken about 15 miles west to Northwest Rookery where we spent about 2 hours. We then departed for Yurtashka on Copper Island about 1630. We were informed en route that the weather prevented a visit to Commander Vitus Bering's grave. It will be remembered that Commander Bering and his scurvy-ridden crew were shipwrecked in 1741 (?) on the island which bears his name today. Bering died and was buried a few days later.

The M/V Steregushchi was identical to the M/V Orel in construction but had a cruising speed of 16 knots. The cooks and table waiters were women. Discipline was more along military lines and crew members were better dressed. Possibly these differences resulted from the fact that the crew was made up mostly of members of the Communist Youth Organization. As explained by the Soviets, these young men alternated between schooling and sea duty during

their training period. The training ship was decorated by a large embossment of Lenin just under the windows of the bridge. There was a picture of Marx in the officers' mess and one of Lenin in the Captain's cabin.

Departure from Medny Island

On 23 July, the M/V Penguin returned the Soviet delegation to Medny Island from their visit to the Pribilof Islands. We boarded the M/V Penguin at 0950 on 23 July and were escorted the first 15 miles of the return trip by a Soviet patrol ship. The ship compared with United States' destroyer escorts in length, i.e., about 250 feet. Two enclosed gun turrets, each mounting a pair of light cannon, were visible, one forward and one aft. Light machine guns or other weapons were not observed.

Rookeries

Bering Island

We anchored off North Rookery at 2330 on 13 July but did not go ashore until about 1000 on 14 July. We were taken close in with a lifeboat, then were transferred in pairs with a skiff to land among the rocks and tide pools of North Rookery.

Carcasses from the last seal kill were piled near the high tide mark along with a dead sea lion. Jute sacks full of hearts, livers, and lungs were standing nearby in a grassy area. The

Inspector, Mr. Igor Tomatov met us and led us around the tide pools to a catwalk bordered by walls 4 feet high which screen the approach to an observation tower. The recently constructed tower was an enclosed structure three stories high. Windows were in two of the four sides of each story.

North Rookery is on relatively flat ground and extends over several rocky areas which are islets at high tide. The harem area seemed to be similar in extent to Kitovi-Lukanin but was less crowded. Females were coming in from the sea in a nearly steady stream. A few dead pups were scattered about. Earlier accounts combined with the appearance of the rookery make it easy to believe that it is capable of considerable growth.

We left North Rookery about noon and in an hour were at Northwest Rookery on the northwest portion of Bering Island. The rookery is located on a low rocky coastal projection populated by sea lions, fur seals, cormorants and resting kittiwakes. Records of Soviet biologists show that in 1958 there were no harems here, in 1959 two or three were established, in 1960, 21 were formed by 12 July and in 1961, 34 were counted on 14 July. We did not approach the harems closely enough to disturb them. From a distance only a few pups could be observed. Northwest Rookery is of interest

because it gives an opportunity to observe the growth of a new rookery located several miles from another rookery.

Medny Island

On 17 July, guided by biologist Gennadi A. Nesterov, we walked across Medny Island to the steep slopes above Southwest Rookery and the main hauling grounds. About 500 young sea lions, mostly males, are usually to be found on rocks at the western end of the rookery. About 400 bulls with harems and 120 without harems occupied the rookery on the day of our visit. An excellent view of the rookery showing the pattern of males, females, and pups was possible from the hills above. The rookery meets the so-called main hauling ground at its east end. Some of Southwest Rookery was on rough rocks but it was mostly on a sloping, stony beach. Dead pups were not numerous.

On 18 July we walked to Chasnoye hauling ground which is on the west side of Medny Island a short distance north of Southwest Rookery. Although called a hauling ground, it is now also a rookery. There were said to be no harems in 1956 or 1957 but Dorofeev and Nesterov said that there are at least 40 harems now. According to a count on 18 July there are about 55 harems. This rookery is in a very rocky situation. Seemingly it could expand at many points

but principally northward. Stejneger (1898)[1/] indicated that seals were at several points along the southwestern portion of the island during his visit in 1882.

Apparently both Northwest and Chasnoye Rookeries were hauling grounds before they became rookeries.

Hauling Grounds

A stairway led from the enclosed catwalk on North Rookery to the principal hauling grounds. Most of the seals we observed on this area were too large by Pribilof standards for killable seals.

The seals seen on Chasnoye hauling ground at Medny were mostly large and probably did not include over 50 suitable for killing. Earlier in the morning about 300 were reported to be on shore but the calm, sunny weather caused them to go into the sea. Many seals of uncertain size and sex were sleeping in the water during our visit. Young sea lions were also hauled out here.

A large proportion of the seals seen on the main hauling ground of Medny were also large, near in size to the class called idle bulls on the Pribilof Islands. Sea lions were occupying an increasing part of this hauling ground, and plans were being made to kill some of them to reduce competition for space.

1/ Stegneger, Leonhard. 1898. The Asiatic fur-seal islands and fur-seal industry. In Part IV, The fur seals and fur-seal islands of the North Pacific Ocean. U. S. Treasury Department Document 2017.

Generalizing, one can say that a worthwhile group of killable seals was not observed during our stay at Medny Island or visit to Bering Island.

A number of hauling grounds, some indistinctly separate, are given names on Medny Island. Some of these are: Dalnoye (distant), Podyemnoye, Pescovaya (fox den), Chasnoye, Deryavoye (hole-in-a-rock), Belaya Pleta (white rock), Kamni (stones), and Glavnoye holostakovoye lezhkishche (main hauling ground).

Age Classification of Seals in Kill

Three sealing drives were made on Medny Island by the time of our departure in 1961. The age composition of these kills were as follows:

12 June - Chasnoye Hauling Ground - 260 males killed

Age	Sample no.	Percent
2	2	.8
3	43	17.1
4	116	46.2
5	71	28.3
6	18	7.2
7	1	0.4
	251	100.0

24 June - Podyemnoye Hauling Ground - 397 males killed

Age	Sample no.	Percent
3	108	28.5
4	173	45.7
5	79	21.0
6	17	4.5
7	1	0.3
	378	100.0

14 July - Dalnoye Hauling Ground - 742 males killed

Age	Sample no.	Percent
2	1	-
3	178	54
4	122	39
5	20	6
7	1	-
	321	99

Sealing Methods

When a sufficient number of seals appear on Medny hauling grounds and the weather promises to be favorable, the village of Preobrazhenskoe is notified by radio. The sealers come by boat

from the village during the previous afternoon or night. Drives are begun at low tide, if possible, so that room is available to drive the seals along the beach at the base of the steep cliffs and slopes that rise along almost the entire coast. The seals are killed with long clubs similar to those used on the Pribilof Island but crudely made of almost any available wood. Seals are skinned by knife on the beach and skins and carcasses are taken to the village. In the village (or at North Rookery on Bering Island) the skins are blubbered on a large wooden beam. The blubbering knives used at North Rookery were made of sickle blades. Presumably this kind is used at Preobrazhenskoe Village also. Apparently the skins are held by a hook fastened to a short line at the bottom of the beam during blubbering. The skins observed seemed to be well cleaned.

Curing is done in wooden salt kenches. The skins are buried in salt about 10 days, then removed and cured for another period in fresh salt.

At North Rookery the equipment consisted of a small salt house with 2 kenches and space for piling skins, a shed with 13 blubbering beams, an unused washing or brining tank, and a wagon for hauling skins. Several small houses used as living quarters were nearby but we saw them only from the outside at a distance.

Carcasses are allowed to ferment in covered pits near the villages for use as fox feed in winter. No cases of botulism were known to be caused by this method of storage.

Seal Tags Recovered

Three Soviet seal tags and seven United States tags were recovered in the kill of 12 June, 11 Soviet and 9 United States tags were found on 24 June, and 40 Soviet and 11 United States tags were recovered on 14 July. The total for the three kills was 54 Soviet and 27 United States tags. The following United States tag numbers were included:

Number	Age	Total
G-3329	7	1
H-17596, 46439, 44647	6	3
I-18954, I-7942, I-25161, I-38530, I-41042, I-18716, I-2888, I-35890, I-11150	5	9
J-19218, J-15355, J-12059, J-46522, J-29815 J-46188, J-30659, J-19833, J-20267	4	9
K-32797, K-39151, K-17247, K-32932, K-35038	3	5
		27

By 28 July five Soviet tags had been recovered on the Pribilof Islands from 3-year-old seals, tending to confirm a prediction made in 1950 that about the same proportion of seals from Asian Islands would migrate to waters off North America as seals from the Pribilof Islands migrated into Asian. This year, 1961, is the first in which an adequate number of tagged seals of killable size from Soviet Islands were available to even suggest the amount of movement from the Commander to the Pribilof Islands. The total number of seals involved in the exchange is not great but is enough to verify a greater inter-relationship between the seal populations of the two groups of islands than was formerly suggested. Certainly, any claims of easily recognizable differences between Commander Island seals and Pribilof Island seals now seem preposterous.

Length Measurements of Seals

The mean length of 33 Soviet tagged 3-year-old seals taken on 14 July 1961 at Medny Island was 117.5 cm. The length of 30 3-year-old tagged seals taken on 14 July at St. Paul Island was 110.1 cm. One Pribilof seal was 120 cm. or more in length but 10 of the 30 Commander Island seals were over 120 cm. The 7.4 cm. length difference is substantial and an attempt will be made to

obtain additional measurements for comparison. If valid, this evidence tends to support the belief that better growth and probably better survival occurs in the low seal population on the Commander Islands than in the high population of the Pribilof Islands where competition is severe. Because the seals taken on the Commander Islands are generally larger than those taken on the Pribilof Islands, selection of larger seals may have influenced the difference indicated above.

Comparison of Commander Islands and Pribilof Islands Seal Herds

From 1871 to 1891, the period of most intensive killing of fur seals on the Commander Islands, an average of nearly 37,000 skins per year were taken (Stejneger, 1898). In part the number taken was estimated (or guessed) because the figures for the number shipped did not include those rejected for various reasons. For the same period, 1874-1891, an average of 95,000 skins were taken on the Pribilof Islands.

The combined effect of land and pelagic sealing, including rookery raids and illegal purchases of skins continuing after the Treaty of 1911, reduced the Commander Island herds by 1922 to

a condition described by Stejneger (1925)[2/] as deplorable. Only North Rookery on Bering Island remained. Much of this rookery was deserted and overgrown with grass. Medny Island rookeries which still occupied isolated beaches along 6-1/2 miles of coast in 1896 were reduced to a single group, the Glinka rookeries, by 1922. Only two rookery areas, Urile and Lebiazhe remained near the level of 1910.

Recovery of the Commander Island seal rookeries has been very slow as compared with Pribilof rookeries, partly because of the greater destruction and partly because of continued attrition.

Under current land harvesting practices and with continued protection from pelagic sealing the rookeries can be expected to enlarge. It is impossible to predict if and when rookeries that were completely destroyed will be restored.

Vegetation

The vegetation of the Commander Islands includes fewer plants of the Arctic than that on the Pribilof Islands. A lush growth covers the valleys and lower slopes near the TINRO laboratory at Yurtashka. The following plants were prominent in this growth:

2/ Stegneger, Leonhard. 1925. Fur-seal industry of the Commander Islands, 1897-1922. From Bulletin of the Bureau of Fisheries, Volume XLI, Document No. 986.

Heracleum lanatum	Habenaria sp.
Coelopleurum gmelinii	Polygonum viviparum
Anemone narcissiflora	Polemonium sp.
Geranium erianthum	Urtica dioica
Carduus kamtschatikus	Sorbus sambucifolia
Viola langsdorfi	Epilobium sp.
Claytonia acutifolia	Saxifraga punctata

On the upper slopes or on very steep, stony slopes even though close to sea level a heath-like vegetation covers the ground. Composing it are such plants as:

Empetrum nigrum	Potentilla sp.
Phyllodoce coerulea	Saxifraga serpyllifolia
Cassiope lycopodioides	Saxifraga sp.
Rhododendron chrysanthum	Salix reticulata
Vaccinium vitis-idaea	Salix sp.
Primula cuneifolia	Anemone narcissiflora
Lagotis glauca	Polygonum viviparum
Geum rossii	Oxyria digyna
Geum calthifoleum	Draba incana

Mammals

The fur seal and Steller sea lion have been taken up in other parts of the report. One other marine mammal, the sea otter (Enhydra lutris) was observed on three occasions. Only six otters were seen. The species seems to be far from abundant in view of the extensive favorable habitat. It is said to be restricted now to Copper Island. Although hunting was supposed to have terminated about 1920, protection apparently was not complete until recently or a larger population would have developed at Copper Island in the intervening 40 years and would possibly have spread to Bering Island.

No harbor seals were seen although they occur.

The Arctic fox (Alopex lagopus) was almost constantly in evidence on the south part of Medny Island. Along the beach one pair escorting humans was replaced by the pair holding the adjoining territory. Some were curious and bold to the point where they would come up and tug at trousers or chew on shoes. On the hillsides foxes were frequently yapping alarm calls. Sea birds were the most evident article of diet at this season. Foxes are maintained in pens at the two villages but low prices are forcing the villagers to reduce their stock to a minimum. The taking of foxes for fur is still carried on.

About 1,000 reindeer are said to run wild on Bering Island. They are not herded but simply hunted.

Birds

The most abundant nesting sea bird on the south end of Medny Island was the fulmar (Fulmarus glacialis) in the dark phase. This is common also on the Pribilof Islands where only the light phase nests. Both occur at sea between the two island groups.

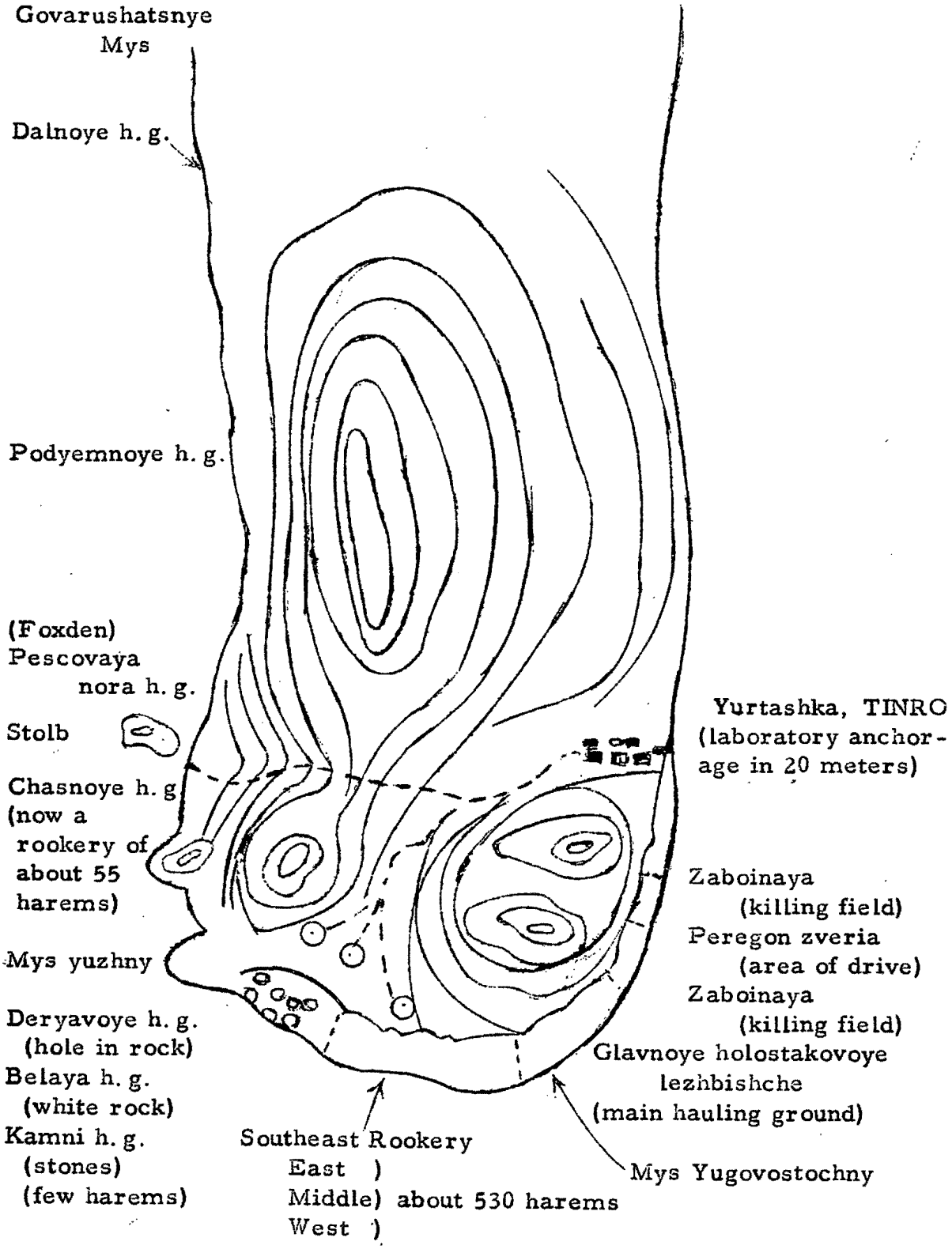
Both the horned puffin (Fratercula corniculata), and tufted puffin (Lunda cirrhata) nest, although they are not in large colonies. The thick-billed murre (Uria lomvia) nests where ledges are suitable. These are not extensive.

Colonies of the black-legged kittiwake (Rissa tridactyla) are found together with nesting red-faced cormorants (Phalacrocorax urile). No red-legged kittiwakes (R. brevirostris) were seen nesting. Only one bird of this species was seen. It is reported to nest on the Commander Islands. The pigeon guillemot (Cepphus columba) was in small groups along the shore. The winter wren (Troglodytes troglodytes) was abundant on the beach and beach cliffs. Family groups were appearing in late July. Glaucous-winged gulls (Larus glaucescens) were seen regularly but were not numerous. The

Lapland longspur (Calcarius lapponicus) and the snow bunting (Plectrophenax nivalis) were the common upland birds. Four rock ptarmigan (Lagopus mutus) were seen. They seemed to be sparsely distributed.

Bird observations are given in greater detail by Mr. K. W. Kenyon in his report of the trip to the Commander Islands, dated 18 August 1961.

Appendix A
Medny Island, U.S.S.R., rookeries and hauling grounds,
July 1961



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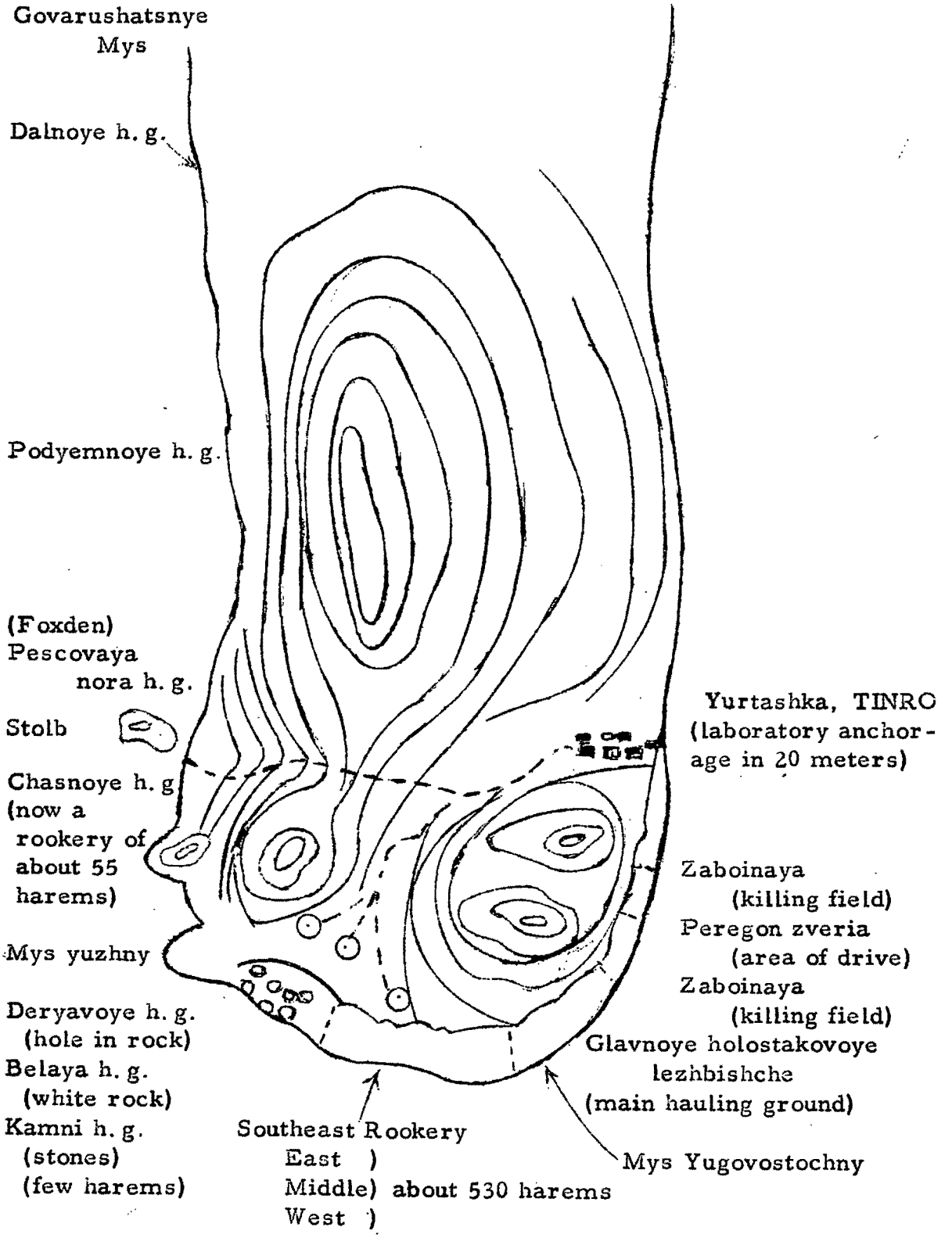

Appendix C

List of people met during visit of U. S. Bureau of Commercial Fisheries representatives to Commander Islands, 5-23 July 1961

Name			
family	first	father's	
Shahovets,	Aleksei	Spiridonovitch	Captain, M/V Orel
Gerasimenko,	Georgi	Nikititch	First Mate, M/V Orel
Grechishev,	Aleksander	Michailovitch	Supervisory Captain, stationed Vladivostok
Mironov,	Valeri	Vasilevitch	Captain, M/V Steregushtchi
Ivanov,	Gennadi	Aleksandrovitch	First Mate, M/V Steregushtchi
Makushin,	Mihail	Makarovitch	Major, Coast Guard
Tarasov,	Leonid	Andreevitch	First Lieutenant, Coast Guard
Gubenko,	Yuri	Terentevitch	Chief, Kamchatka Fisheries Combine
Tomatov,	Igor	Petrovitch	Inspector, Bering Island
Skripnikov,	Erofei	Petrovitch	Foreman-Brigadir, Medny Island
Dorofeev,	Sergei	Vasilevitch	All-Union Research Institute of Marine Fisheries and Oceanography, Moscow. In charge of Soviet fur seal research.
Nesterov,	Gennadi	Aleksandrovitch	Biologist, Medny Island and Petropavlovsk
Mushtchinkin,	Vladimir	Feodorovitch	Biologist, Bering Island and Petropavlovsk
Lukin,	Valeri	Ivanovitch	Reporter, Radio Petropavlovsk
Gorulev,	Mihael	Igorovitch	Chef, Medny Island (from Moscow)
Nedospasova,	Lydia	Aleksandrovna	Hostess, Medny Island (from Petropavlovsk)