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REPORT

OF THE

BRITISH AGENT

TO THE

RUSSIAN SEAL ISLANDS UNDER THE PROVISIONAL AGREEMENT

ENTERED INTO BETWEEN HER MAJESTY'S GOVERNMENT

AND THAT OF RUSSIA FOR THE

PROTECTION OF THE SEAL FISHERIES
DURING 1893.

WITH APPENDICES

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REPORT OF THE BRITISH AGENT

TO THE RUSSIAN SEAL ISLANDS UNDER THE PROVISIONAL AGREEMENT, ENTERED INTO BETWEEN HER MAJESTY'S GOVERNMENT AND THAT OF RUSSIA FOR THE PROTECTION OF THE SEAL FISHERIES DURING 1893.

OTTAWA, 31st December, 1893.

MY LORD,—I have the honour to submit the report of my visit to the Russian Seal Islands, as British Agent, under the Provisional Agreement entered into between Her Majesty's Government and that of Russia, for the protection of the Seal Fisheries during 1893.

REPORT.

PROVISIONAL AGREEMENT.

ST. PETERSBURGH, May 10 (22), 1893.

M. le Chargé d'Affaires,

In reply to your communication of the 30th April (12th May), I have the honour to inform you that the Imperial Government, while accepting the draft arrangement annexed to that communication, prefer to give it the character of an exchange of notes, for the following reasons :—

Because the too concise wording of the above-mentioned draft would leave room for certain misunderstandings, and perhaps even for complications, which it would be desirable to avoid ;

Because the Imperial Government could not agree to the draft in question without some reservations designed to safeguard their freedom of judgment in the future.

It is understood that the agreement to be arrived at between our two Governments will leave intact all the rights of Russia in her territorial waters.

As to our reservations, they refer to the points mentioned below :

1. In consenting to hand over to the British authorities the English ships engaged in sealing within the prohibited zones, we do not wish to prejudice, generally, the question of the rights of a riverain Power to extend her territorial jurisdiction in certain special cases beyond waters properly called territorial.

2. The Imperial Government desire to preserve complete liberty of action as to choosing in the future between the two systems of protecting seals, either by the method of a prohibited zone, or by the method of entirely prohibiting pelagic sealing, or regulating it in the open sea.

3. The present arrangement cannot in any manner be considered as a precedent, and will be looked upon by us as of an essentially provisional nature, intended to meet present circumstances.

With these reservations, we accept the British proposal in the following terms :—

1. During the year ending the 31st December, 1893, the English Government will prohibit their subjects from hunting seals within a zone of 10 marine miles on all the Russian coasts of Behring Sea and the North Pacific Ocean ; as well as within a zone of 30 miles round the Komandorsky Islands and Tulénew (Robben Island).

2. English vessels engaged in hunting seals within the aforesaid zones beyond Russian territorial waters may be seized by Russian cruisers, to be handed over to English cruisers or to the nearest British authorities. In case of impediment or difficulty, the Commander of the Russian cruiser may confine himself to seizing the papers of the afore-mentioned vessels, in order to deliver them to a British cruiser, or to transmit them to the nearest English authorities, on the first opportunity.

3. Her majesty's Government engage to bring to trial before the ordinary Tribunals, offering all necessary guarantees, the English vessels which may be seized as having been engaged in sealing within the prohibited zones beyond Russian territorial waters.

4. The Imperial Government will limit to 30,000 the number of seals which may be killed during the year 1893 on the coasts of the Islands of Komandorsky and Tulénew (Robben Island).

5. An agent of the British Government may visit the afore-mentioned islands (Komandorsky and Tulénew) in order to obtain from the local authorities all necessary information on the working and results of the agreement arrived at, but care should be taken to give previous information to these authorities of the place and time of his visit, which should not be prolonged beyond a few weeks.

6. The present arrangement has no retroactive force as regards the British vessels captured previously by the cruisers of the Imperial Marine.

These terms being based upon the notes previously exchanged between our two Governments, as well as upon the text of the latest English proposals, we hope, M. le Chargé d'Affaires, that Her Britannic Majesty's Government will consider the understanding between us to be entirely established from this time forward as regards the regulation of seal fisheries during the present year.

Accept, &c.,

(Signed) CHICHKINE.

The Earl of Rosebery to Mr. Howard.

(Telegraphic.) FOREIGN OFFICE, May 29, 1893.

I have received your despatch of the 23rd instant, inclosing a note from M. Chichkine, defining the terms of the arrangement for the protection of the Russian seal fisheries during the present year, to which the Russian Government are prepared to agree.

I have to instruct you to address a note to the Russian Government in reply, stating that this arrangement is accepted by Her Majesty's Government as a temporary agreement for the current year, and that they will take immediate steps to procure the legislation necessary for carrying it into execution.

With regard to the reservations made in M. Chichkine's note, you will state that Her Majesty's Government have taken note of them, but do not at present propose to discuss them; that, on the other hand, they must adhere to the reservation previously made by them, and contained in your note of the 12th of this month, and that it is understood that the rights and position of either Power are in no way affected by the conclusion of this provisional arrangement.

You should inform the Russian Government, at the same time, that we propose to lay the correspondence at once before Parliament.

Sir R. Morier to the Earl of Rosebery.—(Received May 30, 9·45 P.M.)

(Telegraphic.) ST. PETERSBURGH, May 30, 1893, 6·12 P.M.

In pursuance of your Lordship's instructions, as conveyed in your telegram of yesterday, I have this day addressed a note to the Russian Government in the following terms:—

"Your Excellency's note of the 10th (22nd) instant, on the subject of the seal fisheries in the North Pacific, was forwarded without delay to Her Majesty's Principal Secretary of State, and I am now instructed by Her Majesty's Government to state that they accept, as a provisional agreement applying to the present year only, the arrangement for the protection of the Russian sealing interests as defined in that note. They will forthwith invite Parliament to enact the legislation which is necessary to carry the Agreement, so far as it binds Great Britain, into effect.

"With reference to the general reservations contained in your Excellency's note, Her Majesty's Government, while taking note of them, have instructed me to abstain from discussing them at present, but to inform the Imperial Government that they, on their side, maintain to the full the reservations made by them as formulated in Mr. Howard's note to your Excellency of 30th April (12th May). It is understood, therefore, that the rights and position of neither Power are in any way prejudiced by this provisional arrangement."

INSTRUCTIONS.

FOREIGN OFFICE, 10th July, 1893.

SIR,—I have to inform you that you have been selected by Her Majesty's Government to visit, during the present sealing season the Komandorsky Islands and the Island of Tulénew (Robben Island) in order to obtain from the local authorities information on the practical methods of affording protection to the Seal Fisheries, and particularly on the working and results of a provisional Agreement entered into between Her Majesty's Government and that of Russia for that purpose during the present year.

I transmit for your guidance a memorandum of instructions as to the points to which your enquiries should be specially directed.

Copies of the correspondence on the subject which has taken place with the Russian Government and which has been laid before Parliament, are inclosed herewith for your information, together with the report and supplementary report of the Behring Sea Commissioners and the report of Mr. J. M. Macoun, on his investigations in 1892.

Her Majesty's Chargé d'Affaires at St. Petersburg has been instructed to apply to the Russian Government for the necessary facilities to enable you to carry out the object of your mission.

You will receive from the Governor General of Canada instructions as to your movements, the payment of your expenses while employed on this duty, and the transmission of your reports to him.

Arrangements will be made for your conveyance to the islands on board one of Her Majesty's ships, but on this point you will receive the necessary directions from the Governor General.

I am Sir,

Your most obedient humble servant,

ROBERT NORRIS VENNING, Esq. (Sd.) ROSEBERY.

CANADA.

CITADEL, QUEBEC, 14th July, 1893.

SIR,—I have the honour to inform you that you have been appointed as British Agent to visit the Komandorsky and Tulénew Islands for the purpose of investigating certain questions connected with seal life.

Your instructions will be handed to you by Major St. Aubyn, Governor General's Secretary, Ottawa.

I have the honour to be,

Sir,

Your obedient servant,

(Sd.) DERBY,

Governor General.

To ROBERT NORRIS VENNING, Esq.
Ottawa.

Memorandum of Instructions for the Agent of the British Government appointed to visit the Komandorsky and Tulenew Islands.

Under the temporary agreement entered into between Great Britain and Russia for the protection of the seal fisheries during the present year, clause 5 states that: "An agent of the British Government may visit the aforementioned islands (Komandorsky and Tulenew), in order to obtain from the local authorities all necessary information on the working and results of the agreement arrived at, but care should be taken to give previous information to those authorities of the place and time of this visit, which should not be prolonged beyond a few weeks."

The headquarters of the Russian Administration of the Komandorsky Islands is at Nikolski, Behring Island, which place should be first visited. Conferences with the gentlemen in control there for the Russian Government, and with those in charge for the company holding the lease under the Government, will enable you to ascertain their views and experience.

If convenient, one or both of the rookeries of Behring Island might be visited, for the purpose of obtaining facts remarked by the local observers of these rookeries. Arrangements might then be made to consult with the authorities in charge of Copper Island, and one or more of the rookeries on that island might also be visited if found practicable.

It is not suggested that all the rookeries and hauling grounds of the islands should be inspected. This would consume much time, and you would not be in a position to compare their appearance this year with that of former years. It will be necessary to trust for such information to those residing on the islands, but you will be careful to secure, as far as possible, separate information from the several gentlemen, and, where opinions are advanced, to obtain or ask for the evidence or observations in detail upon which they may be based.

Tulénew Island, or Robben Reef, in Okhotsk Sea, it will probably be inconvenient to visit, but such information as possible concerning it may be gathered from the officials on the Komandorsky Islands, or elsewhere.

A careful examination of the report and supplementary report of the British Behring Sea Commissioners, and of the report of Mr. J. M. Macoun respecting his investigations in 1892, will enable you to ascertain what is already known respecting the main problems of seal life, and concerning which of these the facts are still in doubt.

While you will not neglect the opportunity of obtaining trustworthy information on any subject, the most important points upon which additional facts are at present desirable, are those bearing on the efficiency, or otherwise, of the protective zone about the islands, provided for by the current agreement, and a comparison of the circumstances existing under it, with those obtaining in 1891 and 1892.

It has, for instance, been stated that the female seals, while suckling, regularly go to great distances from the breeding islands, are those killed at sea by pelagic sealers, and that their young on the islands perish in consequence.

Mr. Macoun was informed on the Komandorsky Islands, in 1892, that no excessive mortality of "pups" was observed there in that year, though pelagic sealing was more actively carried on in the vicinity than ever before. Contrary statements have been made from other sources, and the facts in this respect for 1892 should be investigated and compared with those in 1893.

Evidence relating to the length of time during which the pup is *necessarily* suckled by the mother before weaning, the earliest date at which the female may resort to the sea after giving birth, whether she then seeks the sea for the purpose of feeding, and, if so, to what distance from the shores she usually goes, will be particularly important in this connection.

Conjectures of those permanently residing upon the islands, as to the date of beginning and length of feeding excursions of feeding cows, can possess but little value, unless supported by other evidence or observations at sea. It will, therefore, be well to obtain the experience of as many pelagic sealers as possible on this point, with facts as to the number of cows in milk, if any, obtained by them at different distances and in various bearings from the islands.

In collecting this evidence, care should be taken to distinguish between exceptional and normal instances, and between milking cows regularly engaged in suckling and with a full supply of milk, and those in which the milk is proved to be "drying up" after the weaning of the young.

In the enclosure of His Excellency M. Chichkine to Sir R. Morier, dated the 12th (24th) February 1893, it is stated :—

"With regard to the thirty-mile zone around the islands, this measure is taken with a view to protect the banks, known by the sealers as "sealing grounds," which extend round the islands, and are not shown with sufficient accuracy on maps. The banks are frequented during certain seasons by the female seals, the killing of which is particularly destructive to the seal species at the time of year when the females are suckling their young, or go to seek food on the banks known as sealing grounds."*

Any evidence as to the existence or otherwise or such feeding banks, and as to their position, will be of value.

Some evidence already obtained tends to show that females occasionally drop their young at sea, or lose them on the islands and are thereafter found still in milk at very great distances from the breeding islands. Careful attention should be given to any such instances, and you should endeavour to ascertain by observation and inquiry, whether females who have lost their young in such circumstances remain on the islands.

Much yet remains to be ascertained respecting actual migration routes of the fur-seals of the Asiatic side of the Pacific in going to and returning from the Komandorsky Islands, with their winter habitat in the vicinity of the Japanese Coasts.

* British Print Russia No. 1 (1893) page 12.

Facts observed by the British and Russian cruisers engaged on duty in these waters will doubtless assist in determining these routes, and information should also, when possible, be obtained from the pelagic sealers. The actual logs of these vessels, with notes as to the dates, places, and condition of seals captured, will possess special value.

Transcripts of the sealing logs of as many vessels as possible should be obtained after your return to Victoria. The most important facts under this head are those showing where and at what times any great killing of females, heavy with young, or of females in milk engaged in suckling their young, occurs, in order that any regulations hereafter framed may be such as to safeguard the animals in this condition from slaughter.

The average dates of landing and departure from the islands of seals of different sexes and ages, particularly if those can be obtained for a series of years, will be of value. It has been maintained that female seals do not land on the islands from the time they leave them as pups until they return to give birth to their first pup, and any facts confirming this statement, or otherwise, should be carefully noted.

Inquiries should also be made as to the state of the Komandorsky Islands in years of scarcity or of abundance of seals on the Pribyloff Islands, for the purpose of ascertaining whether these two groups of islands are similarly affected in the same years, or otherwise, and generally upon any effects upon the Komandorsky Islands believed to be due to practices upon the Pribyloff Islands or Robben Reef.

Any available information also as to the number of years during which a female seal continues to bear young should be collected; and similarly, any information as to the number of years a male seal renders efficient service on the rookeries; and in this connection any facts as to the existence and habits of barren females and effete males should be noted.

NARRATIVE.

In obedience to the directions contained in the telegraphic despatch of the Marquis of Ripon to the Earl of Derby, dated 11th, communicated to me on the 13th July, I proceeded on the 15th to San Francisco.

2. From that port I sailed for Yokohama on the 22nd July, on board the Pacific mail steamship "Peru," arriving there at 4.30 p.m., on the 8th August.

3. On the arrival of the steamer, the British Consul communicated to me a letter from H.M. Chargé d'Affaires at Tokio, announcing that he had been instructed to notify me that the Russian authorities would afford me all necessary facilities on the Seal Islands.

4. Commander Rogers of H.M.S. "Archer" met me on board the "Peru" and immediately transferred me to his ship

5. That evening at the Consulate, I had the benefit of a conversation with Consul Troup on the subject of sealing generally.

6. Prior to sailing, the following morning, 9th August, Commander Rogers and myself called upon Captain Fawkes of H.M.S. "Mercury," who had just returned from the Okhotsk Sea, and consulted him as to the condition of things at Robben Island regarding the sealing agreement.

7. Returning on board the "Archer" we sailed at 9.30 a.m., for the Komandorsky Islands.

8. We reached the port of Hakodate on the evening of the 11th, where we coaled ship.

9. I called upon the British Consul, Mr. Hall, who informed me the Canadian and United States pelagic sealers that had called at that port had been

unusually successful. He procured for me a list of these vessels, giving their catches and dates of entry. This will be found among the appendices, numbered 35.

10. Having completed coaling, we left Hakodate on the afternoon of the 12th August.

11. On the 18th day of August we reached the town of Petropaulovski, after having experienced constant fogs and disagreeable weather. The Russian man-of-war "Yakout" and the Russian Seal-skin Company's schooner "Leon," were then in the harbour.

The latter vessel recently arrived from Robben Island, carrying for shipment to San Francisco, the quota of seal skins taken from that island.

12. The "Yakout" was coaling, preparatory to relieving the "Zabiaka," which vessel was then cruising around Komandorsky Islands.

13. I availed myself of the presence of the master of the company's schooner "Leon," and consulted him touching the condition of Robben Island, and the agreement for a protective zone of 30 miles. I procured from him a statement, which will be found among the appendices, numbered 5.

14. We left Petropaulovski at 7.30 a.m. on the following morning (19th). The weather continued foggy and disagreeable.

15. That evening, just before dark, we met H.M.S. "Porpoise" on her way down. I had a conference with commander Burr, who came on board the "Archer."

16. Parting company with the "Porpoise," we proceeded on our way, and reached Nikolski, Behring Island, on the evening of Sunday the 20th August. The Russian cruiser "Zabiaka" and the Russian Seal-skin Company's steamer "Kotik," were anchored in the bay.

17. With captain Rogers I visited the "Zabiaka," had a short conversation with captain Domojiroff, and then visited the shore.

18. I was met by Mr. Grebnitzky, the Governor of the island, Mr. Pafsky, a Russian official, who was to act for Mr. Grebnitzky who was about leaving the islands on a lengthy leave of absence; Mr. Grunwaldt, of the Russian Seal-skin Company, Mr. John Malowansky, the company's agent on board the "Kotik" and Mr. Waldimar Paetz, the company's local agent at Nikolski.

19. I was informed by Mr. Grebnitzky that I had been expected for some time and that all facilities would be afforded me. The season he said was over, and they intended starting the next morning for a final tour of the rookeries and a settling up of the season's business. Accommodation on board the "Kotik" was offered me, to show me all that was to be seen in that connection. Next morning I transferred from "Archer" to the "Kotik."

Captain Rogers had arranged with me that he would call at Nikolski one week from the day I transferred to the "Kotik," the intention being to go to Copper Island.

20. The "Kotik" reached North Rookery, Behring Island, that afternoon. I visited the salt-house and rookery.

21. The following morning 22nd, while the work of the officials proceeded, I visited the three points of North Rookery with the Chief of the natives.

22. That afternoon we left for Copper Island, anchoring off Preobajenski at daylight on Wednesday the 23rd. Supplies were landed, when we sailed for Korabelny and dropped anchor off that village at 10.15 a.m.

23. We left Korabelny, arriving at Glinka at 3.40 p.m. Here I procured a guide and crossed the island to the rookeries, which on this island are distributed along the shore for some distance.

24. Leaving Glinka we returned to Preobajenski on the 24th. I conferred with Mr. Emile Kluge, the company's local agent there.

25. We left Preobajenski on the 25th, for Nikolski, reaching that place on the morning of the 26th August. The "Archer" had called and left the night before.

26. The steamer "Kotik" with Mr. Grebnitzky, Mr. Grunwaldt and Mr. Malowansky, sailed on the evening of the 26th for Petropaulovski *en route* to San Francisco.

27. I went ashore to the Company's house which is in charge of Mr. Waldemar Paetz. Dr. Nicolas Slunin, surgeon of the "Yakout" and of the Academy of Sciences at St. Petersburg, was on the island. He was making some natural history enquiries in connection with seal life, for the Russian Government, having also been similarly engaged there last fall.

28. The following day, 27th August, in company with Dr. Slunin, I secured a dog train and started for North Rookery, having previous to the departure of Mr. Grebnitzky, got permission to go upon the rookeries where proper observations could be made.

29. *En route* we remained over night at a village, called Sarannoie, where large numbers of salmon were taken by the natives.

Detailed observations made here will be found under another heading.

30. We reached North Rookery at 10 a.m. on the following morning (28th Aug.), where I had an opportunity of making a close inspection of the different sections of the rookery.

31. In the afternoon I made another visit to the rookery. This was the day on which according to arrangement I should have met the "Archer" at Nikolski, and I had expected to return that night, but as it was Dr. Slunin's intention to kill some female seals for scientific researches, I regarded the opportunity as the only one which could possibly present itself and consequently remained.

32. Early in the morning of the 29th a small "drive" was made from which five females were selected for killing. These females were killed and dissected in my presence. The details of observations will be found under another heading.

33. I arrived at Nikolski in the afternoon shortly after the "Archer" had sailed, she having called the day before as agreed.

34. Captain Rogers left a letter for me stating that he would return to Nikolski on the 5th September, weather permitting, *en route* to Petropaulovski to coal.

35. On the 31st August the "Yakout" called at Nikolski for provisions and to take Dr. Slunin on board. I had a long conference with Captain Chmeilevsky.

36. During my stay on the islands, in conversation and otherwise, I collected considerable information from the natives.

37. Early in the morning of the 4th September, the "Archer" steamed into Nikolski Bay, although I had not expected her until the 6th. The weather was very fine and had been for the past few days. It was arranged that I should board the "Archer" the following morning and go to Copper Island.

38. During the night, however, the wind sprung up and the sea ran so high that the "Archer" had to put to sea for safety. During the 5th, 6th, 7th and 8th the storm raged rendering it impossible either to land on the island or to leave it. Between the night of the 8th and morning of the 9th the gale moderated and towards the afternoon both the "Zabiaka" and the "Archer" steamed into the bay. The sea was still running very high but a landing was effected about a mile and a half from the village.

39. At 4.50 p.m., I rejoined the ship, which had not came to anchor. We proceeded to Petropaulovski for coal, arriving there at 6.30 on the morning of the 12th September.

The "Yakout" was then in port, but sailed at 5.25 p.m. for Komandorsky Islands.

40. At 2.25 p.m., Friday 15th, the "Zabiaka" arrived from the Komandorsky Islands.

41. On Sunday 17th, at 2.45 a.m., the steam sealing schooner "Warlock" Captain Adolph Ridderbjikle, of Victoria, B.C., arrived at Petropaulovski. The captain said he had cleared from Victoria on the 10th June on a seal hunting voyage to the North Pacific Ocean; that his vessel was a poor sailer; that her engines were constantly getting out of order; that he had encountered very bad weather, and at Sand Point had taken out a new clearance for Petropaulovski. He had taken no seals.

42. On the 18th September, we started for Komandorsky Islands reaching Nikolski at 7.45 a.m. on the 21st. Here Captain Rogers got the papers of the seized Canadian sealing schooner "Maud S." which had been left there for him.

43. It had been intended to make another visit to Copper Island and thence to Hakodate *en route* to Yokohama It was however getting late in the season, the bad quality of the coal procured at Petropaulovski combined with adverse winds and weather induced Captain Rogers to abandon the trip to Copper Island and sail direct for Hakodate. Therefore, our course was thus shaped at noon 21st September.

44. On the way down we encountered continuous head winds and heavy seas, reducing speed to a minimum. This, added to the rate of consumption of coal, decided the captain, when within about 70 miles of Petropaulovski to run into that port for more coal to enable us to increase speed to Hakodate. We consequently reached Petropaulovski at 8 o'clock a.m., Sunday, 24th September, and coaled that day.

45 The sealer "Warlock" was still in port. The master came on board and informed us that without having seized his vessel, the captain of the "Zabiaka" had taken his papers and sealing equipment. This, the Russian commander had stated, was done as a protective measure. He left with the Governor of Petropaulovski papers sufficient to enable him to go to Yokohama—which port, he said, he desired to reach. The Russian Commander told him he would receive from the British Consul there his original papers and equipment, which would be sent there by him.

46. At noon Monday, 25th September, having completed coaling, the "Archer" left Petropaulovski for Hakodate. It was understood that the "Warlock" would leave on the 27th.

47. The agreement provided that my stay should not be prolonged beyond a few weeks, and as I had remained in the vicinity five weeks, and as the season was getting late, it was not thought advisable to visit Robben Islands.

48. We reached Hakodate on the morning of 30th September at 8.30 o'clock. As we steamed toward the entrance of the Harbour we passed the seized schooner "Arctic," presumably on her way to Yokohama.

49. On arrival at Hakodate we received our mail from H.M. gunboat "Firebrand," then in port. This was the first and only mail I received while on this duty. It contained the Supplementary Report of the Behring Sea Commissioners and Mr. Macoun's report of his recent investigation; together with my formal appointment from the Foreign Office, none of which had reached Canada prior to my departure. I went ashore and called upon the British Consul, who gave me all the information he could touching the sealing fleet that had called at Hakodate.

50. At 5 o'clock, a.m., on the 2nd October, the "Archer" left Hakodate for Yokohama having in the meantime coaled ship, reaching the latter port about noon on Wednesday the 4th.

51. During my stay in Japan, awaiting the sailing of the Canadian Pacific Railway steamer "Empress of Japan," I called upon Admiral Sir E. Fremantle, H.B.M. Chargé d'Affaires at Tokio, and H.B.M. Consul at Yokohama, touching the question of the seal fisheries, and exchanged information on the subject.

52. I also met the Captains of the seized schooners "Arctic" and "Maud S.", and others interested in the sealing business.

53. On Friday, 13th October, I embarked on board the steamer "Empress of Japan" and at 1.30, p.m., sailed for Victoria, British Columbia, reaching that port at 2.30 p.m., on the 24th October.

54. Mr. A. R. Milne, Collector of Customs, kindly provided me with office accommodation and I proceeded immediately with my inquiry in the line of my instructions.

55. The nature of the information I was seeking rendered my progress comparatively slow. On the 10th November, finding that which I had collected was quite representative of the fleet which operated in Japanese and Russian waters this year, and any which followed must of necessity be very similar, I decided to return to Ottawa as soon as possible.

56. Reaching Vancouver on the 11th, I remained over one day consulting several gentlemen interested in the sealing business, and getting positions of the Vancouver schooner "Beatrice," which vessel had been on the Japan coast and in waters around Komandorsky Islands this year.

57. I left Vancouver at 2 p.m., Sunday 12th, arriving in Ottawa on the 18th November.

OBSERVATIONS ON THE ISLANDS.

58. The operations of the company, under their franchise from the Russian Government, had ceased on the 13th and 14th of August, on Behring and Copper Islands, respectively, prior to my arrival.

59. The positions of the seal rookeries on Komandorsky Islands are as follows:—

North Rookery, Behring Island. { 1. Na Rifoo. 2. Moroscechnik. 3. Tejiakovo.

Lies 11 miles west ½ north from Cape Vaksel and 10 miles north-east ¾ east from deep water off North-west Cape (magnetic.)

South Rookery, Behring Island.—Lies 8 miles north-westward off Cape Pereschicka and three-quarters of a mile south-east of Polojorno (Midday) Cape (magnetic).

Stolkovoi Kamen, opposite *Korabelny*, Copper Island. Lat 54° 43′ N. Long. 167° 50′ E.

Babi Padiom, Copper Island.—About Lat. 54° 34′ N. Long. 167° 57′ E.

From this place the seals extend at intervals north-westward. Seals are also to be found from South East Cape towards *Babi Padiom*.

60. I reached North Rookery on the 21st August, and took a casual preliminary observation of the main portion of the rookery and its surroundings. The young seals were playing around the boat on its passage to the shore, and close to the vessel as she lay at anchor; the water being literally alive with them. In the immediate vicinity of the rookery and beaches, almost as far as the eye could reach, countless numbers of seals were swimming in the water. Straggling ones could also be seen at varying distances from the shore, never apparently exceeding two to three miles.

The majority were pups, which could be observed from their size. The officials stated that the larger ones were females.

61. The rookeries appeared to be well filled, yet there were thousands of seals playing about in the water on the edges thereof. They kept up a continuous and peculiar noise which can only be likened to the bleating of a gigantic herd of lambs.

62. Next morning, 22nd August, in company with Mr. Pafsky and the Chief of the Aleuts, I visited the different points of this rookery. Although there were more seals on the land and fewer in the water than the day previous, yet there were countless numbers along the water fringes.

63. While skirting the beach between the first and second points of the rookery, I found 15 dead pups at the water line, washed ashore. It was said by the officials that this could be accounted for in various ways: They may have been born sickly, have been crushed by the bulls, killed by the surf, or have wandered from their mothers.

64. On the 23rd August, when at Glinka, Copper Island, I crossed the island by climbing the hills in company with Mr. Pafsky and a native guide to view the rookeries. Apparently the conditions were much the same here as at North Rookery, although I could not get as close as I could have wished and I had no previous knowledge to enable me to draw comparisons. As compared with North Rookery, however, there were more seals on the land than in the water.

65. From Glinka the "Kotik" went to Preobajenski, where on the 24th August, I had a consultation with Mr. Emile Kluge, the company's local agent.

66. While on the north side of the island, where no rookeries exist, a pup was seen 20 or 25 miles by water from the nearest rookery. This pup may have been brought across in one of the "drives."

67. On the morning of the 28th August, I visited the North Rookery with Dr. Slunin. Having previously got permission to go upon the rookeries, I had an opportunity for closer examination. As I approached the seals, they receded nearer to, and in some cases into the water. I therefore got on to the places which they had just occupied. In this way I covered about one-third of the lower section of the rookery, locally known as *Na Rifoo*. I could not have carefully examined the complete rookery, without driving the herd into the water, there being no other place for them to go. I made a thorough examination, however, of about a third of this section of the rookery, beyond this using field glasses for observations.

68. I counted 285 dead pups, 150 of which had certainly died this year. The remainder presented the appearance of having been dead for a long time, and I should judge that their deaths had occurred prior to the present year, in some instances nothing being left but the hardened skin, with even the hair and fur partially worn off. On the other hand, those which had unquestionably died this year, although in a few cases being in an advanced state of decomposition, were in a comparatively good state of preservation. From the appearance of some six or eight of these pups, it is very questionable whether they had ever lived. It was also noticeable that although the majority of the dead were undoubtedly young suckling pups, yet the death rate was not necessarily confined to that class, as I observed several larger pups which classed in appearance with those which were pointed out to me as this year's, and which were then quite large and taking care of themselves. I may add, however, that this latter class was found further from the rookery.

69. The majority of the dead pups were principally on the fringe of the rookeries, quite a number being found also on the sand spit or hauling ground.

70. In addition to occupying ground which had just been vacated by seals, I succeeded in getting in among the seals, and although I made a careful examination

both at close quarters, among and behind the rocks, and with the aid of glasses, yet I found fewer dead pups among the seals, than on the fringes of the rookeries.

71. On my previous visits, when I could not approach sufficiently close to make other than a casual observation, the presence of large numbers of crows and gulls mixing with the seals aroused my curiosity and led me to more closely examine deeper into the centres of the rookery when the opportunity was afforded. As a result, I may say that while there were, so far as I could see, fewer dead pups in the thicker parts of the rookery, those to be seen there were in a better state of preservation. My attention was attracted by two crows, one picking at the head of a pup and the other at its hind flippers. The pup would snap at them, but although within two or three feet of adult seals, probably the mother and others, they paid no attention whatever to the operations of the crows.

72. Mr. R. Karlson, a carpenter, who had been all year at North Rookery, told me that the crows picked the eyes out of the pups and that they then became an easy prey. He seemed to be alone in this opinion, and as there are enough dead carcases to afford any food they may be seeking, I would not be inclined to give much weight to this theory.

73. On this visit there were fewer seals in the water than on any previous one, yet there were enormous numbers disporting in the immediate vicinity of the rocks.

74. I observed one pup about 300 yards shorewards from the body of the seals. This pup was quite young, as could be seen by the rough, dark hair, and its size and appearance. It was quite emaciated and having evidently wandered away from the rookeries, and did not appear to be able to make its way back.

75 I found another pup about 100 yards from the main body of the seals, but more in their track than was the previous one ; this pup was asleep ; it was also older than the previous one. I touched it twice with a stick, but only awakened it with a sharp slap of the hand. It appeared very frightened, bleating like a lamb. For some moments it showed its teeth and appeared to be in readiness to defend itself, but seeing that it was not further molested, it quickly made its way towards the main body of the seals.

76. The sleeping seals slept so heavily that I could approach them without any care whatever, and touch them before they would notice my presence.

77. On the afternoon of the 28th August I visited the other sections of the rookery, going on the places vacated by the seals, as I had done on the first section.

78. At *Moroscechnik* I counted 205 dead pups. About one-third of this number might correctly be stated as being of this year's mortality, the remaining two-thirds exhibited the same conditions as previously explained. I could not form any reasonable opinion as to the length of time they had been dead.

79. As before, and although I had better opportunities of observing the thickly occupied portion of the rookeries, the general conformation being more favorable, comparatively few dead pups were to be noticed thereon, the majority being found on the outer edges of the rookery.

80. During each of my visits I made a most thorough search for anything which had the appearance of excrement, and each time failed to discover the slightest trace of such. This fact appeared to me the more remarkable from the further fact that I passed over, and minutely examined, ground which a few moments previously had been occupied by thousands of seals, and which did not present any difficulties in the way of observing any ejected matter. There is a peculiar odour attaching to the rookeries which probably arises from the bodies of such a mass of animal life.

81. On the morning of the 29th August, acting under authority, Dr. Slunin, had officials make a drive of about 50 or 60 seals. When about half the distance to the salt-house had been covered, one seal refused to be driven any further, taking a stand and fighting the drivers. For some time, they endeavoured to force this animal into obedience but without success. It received several prods and blows from their clubs, but stubbornly refused to move and at the same time keeping the men at a safe distance. By this time the other seals were slightly scattering, and this one was left to make its way back to the rookeries, which it did. I observed, however, that it went by a different route from that which it had been driven and was lost to sight on a remote part of the rookery, nearer the sea front. The seals were eventually driven close to the salt-house.

82. In this small "drive," when females alone were wanted, there was one pup and two holluschickie. While they were being viewed by the party preparatory to the selection of a few for killing, some of them charged the drivers quite ferociously, the latter nimbly avoiding their teeth and poking them with their clubs. So persistent was one, that a native struck it a sharp blow on the nose. It rolled over apparently dead. This was the only one clubbed, the other four being rendered inanimate by strangulation, by means of a slip knot dexterously placed around their necks as they raised their heads when a club was pointed at them. They were then seized by the front flipper and a knife driven into their hearts.

83. As each of these seals was despatched, Dr. Slunin made a minute examination by dissection, in my presence, with the following results:—

1. Stomach entirely empty, with the exception of a few parasitic worms. Intestines containing a deep yellow liquid, with some excrement in a pasty state. A very slight show of milk, which the Doctor stated was drying up. The reproductive organs were removed and preserved.
2. Stomach entirely empty, with the exception of 2 parasitic worms. Intestines containing very little yellow liquid, and a very slight show of excrement. No show of milk. Reproductive organs were removed.
3. Stomach empty, with the exception of a small amount of yellowish juicy substance resembling bile, and a few parasitic worms. Intestines contained considerable yellow liquid, also considerable excrement, some exuding during process of dissection. Slight show of milk similar to No. 1. Reproductive organs removed.
4. Stomach empty with the exception a few parasitic worms. Intestines contained some yellow liquid and some parasitic worms, and a very slight show of excrement. A slight show of milk similar to No. 1. Reproductive organs were removed.
5. Stomach empty with the exception of some parasitic worms. Intestines contained some yellowish liquid and a slight show of excrement, in a pasty state. Slight show of milk similar to No. 1. Reproductive organs were removed.

84. After an examination of the reproductive organs, Dr. Slunin stated that in none of the five seals, could he detect the slightest sign of impregnation. He further stated that he had performed similar operations on five female seals last fall, 2nd (14th) October, at which late date, similar conditions obtained, even to a slight show of milk. Neither in those nor in any of them, did he find a trace of embryo.

85. He expressed the opinion that of two of the five seals examined in my presence, one had pupped five times and the other ten. He judged this from the appearance of the reproductive organs on which, he said, a whitish spot appeared for each birth.

86. While watching the natives binding the skins for transportation, I suggested that a few, just as they lay, might be weighed. Seven skins without selection were

weighed with the following result:—9½, 8, 13, 8, 9¾, 7½ and 10 English pounds respectively. It may be stated that the skins shipped from the Komandorsky Islands are flayed as closely as possible, having due regard to their proper preservation, and very little "meat" is left. It was stated to me by Mr. Malowansky, that the skins taken on Copper Island averaged larger than those on Behring Island.

87. The first time I saw the rookeries it rained, and there were very many seals in the water. The second time the sun was hot, with like results. The third and fourth times were on a pleasant day, with the sun overcast, and comparatively few seals were in the water, the rookeries and hauling grounds being well filled up. This accords with the statement of the natives and others, while it shows that the seals will leave the rookeries for other purposes than to obtain food.

88. It was also noticeable that the seals on the rookeries remained in touch with the dead ones, without apparently paying any attention whatever to them.

89. The condition of the rookeries and surroundings, bore unmistakeable proof of the fact that the officials do not regard it of importance to clean them of the dead and rotting carcasses, in the fall after the seals have left.

90. Whatever may be said for or against terrestrial or pelagic sealing, as at present conducted, or the relative destructiveness of these methods to seal life, there can be no question that the possibilities of the one far outweigh those of the other. Standing in the vicinity of a seal rookery, and viewing the animals thereon, it cannot but be strikingly apparent that they are, while on land, wholly at the mercy of man. Only the most favourable circumstances and conditions could enable them to escape an attempt at extermination. If attacked from the sea, it would be but a question of the number of men to do the work. If attacked from the shore, many could escape into the sea.

91 In the water, however, the conditions are reversed, and the animals are comparatively safe. That their natural instinct leads them to an appreciation of this fact, is shown by the rapidity with which they will seek the water, in panic, at the approach of threatened danger. Once having gained the element in which they can bring into full play their powers of locomotion, their safety is almost assured, and they will surround a boat or vessel at quite close quarters, raising their heads out of water in the most inquisitive manner.

92. No concerted action on the part of pelagic sealers, no matter how persistent, could, it is submitted, compass the extermination of the seals. "Travelling" seals are seldom followed by the sealers, and when they are, with very little or no success. Besides, at no time could the main body of the seals be found at any particular part of the ocean; the herds of the two groups of Seal Islands, going to and coming from those islands, being distributed from shore to shore of the North Pacific Ocean, in many cases following the sinuosities of the coast, a distance of many thousand miles. While during certain periods, the majority of the seals—and according to the United States and Russian authorities the whole of them—are to be found congregated on very circumscribed rocks and beaches, at the small islands of St. Paul, St. George, Behring, Copper, and Robben.

93. That the operators on the islands can select for slaughter, certain classes of seals not immediately required for rookery service, is not necessarily a complete vindication of the method. It has been stated, that on the American islands, the annual draught upon this class impoverished the rookeries; so much so that a total cessation of killing for a term of years was recommended. This class is as necessary from which to draw breeding seals, as are the females themselves, and its undue diminution must necessarily have the same effect upon seal life as would that of the females. Besides, it is not shown that these so-called "bachelors" are not useful as breeders, although they may not go on the rookeries occupied by the "bulls."

OPERATIONS ON THE ISLANDS.

94. The Russian Seal-skin Company's agent explained the following synopsis of regulations of the Russian Government, which have to be complied with by the company's officials, in the exercise of their franchise on the islands.

A report of each "drive," on forms provided, is necessary. This report to show:

The number of holluschickie killed at each "drive." If any females, "bulls" or pups are killed. If any damaged skins are taken. The number of men employed in the killing gang. Absentees must be reported and the reasons for their absence given.

The men are held responsible for the quality of the skins delivered

If the flayer injures the skin, his name must be reported.

A fine is imposed for spoiling skins; for killing females, or for taking bad skins.

The "drives" to the killing grounds should begin at 6 o'clock in the morning and continue until 10 o'clock. Killing to begin at noon and end at 7 o'clock, p.m., whenever possible. The clerk gives a receipt for the number of skins delivered at the salt-houses.

95 "DRIVES" on Komandorsky Islands by the Russian Seal-skin Company, during the year 1893, supplied by Mr. Grebnitzky, Governor of the Islands.

NORTH ROOKERY, BEHRING ISLAND.

English dates.	Skins taken.
May 28 (for food)	3
June 24	826
July 2	568
" 13	472
" 18	1,370
" 23	1,670
" 27	1,516
" 31	1,159
Aug. 5	1,392
" 7	852
" 10	400
" 13	1,932
	12,160
In all 14 females killed.	
South Rookery, Behring Island (no details)	327
Total, Behring Island	12,487

GLINKA, COPPER ISLAND.

May 22	58
June 5	100
" 21	714
" 26	250
" 26	570
July 1	782
" 4	1,215
" 9	524
" 14	300
" 14	624
" 17	890
" 17	242
" 22	537
" 24	54
" 26	876
" 28	420
Aug. 3	194
" 4	273

English dates.		Skins taken.	
Aug.	8	213	
"	11	566	
"	12	304	
"	13	452	
"	14	742	
			10,900

KORABELNY, COPPER ISLAND.

June	11	623	
"	15	872	
"	20	398	
July	2	778	
"	7	265	
"	10	777	
"	18	1,024	
"	26	146	
"	27	116	
"	27	110	
"	31	236	
		5,345	
	Added	26	
			5,371
	Total Copper Island		16,271
	Total Komandorsky Islands		28,758
	Add skins taken from Robben Island		1,532
	Total Russian Seal Islands 1893		30,290

NOTE.—In the summary of the sealing catch, compiled by the Collector of Customs at Victoria, appendix No. 37, the number of skins landed at San Francisco by the company's steamer "Kotik," from Petropaulovski, is given at 33,193. I am unable to say from what source the 2,903 skins, in excess of the number killed on the islands, were drawn.

96. Drives on Russian Seal Islands for 1892 and 1891, from information supplied by Mr. Pafsky, acting during absence of Mr. Grebnitzky.

1892.

BEHRING ISLAND.

No dates shown on books.

	Seals.
1 drive	1,330
6 drives	4,192
8 "	7,564
1 "	988
1 "	510
2 "	1,482
17 "	499
36 drives	16,565

COPPER ISLAND.

	Seals.
7 drives	2,151
6 "	3,735
3 "	1,165
2 "	728
1 "	514
2 "	1,851
5 "	2,379
9 "	2,501
35 drives	15,024

Total		31,589
Robben Island	(None)	

1891.

BEHRING ISLAND.

		Seals.	
3	drives	1,946	
3	"	1,784	
10	"	5,654	
1	"	774	
3	"	4.741	
17	"	670	
37			15,569

COPPER ISLAND.

		Seals.	
10	drives	3,492	
10	"	5,196	
5	"	1,902	
2	"	1,017	
1	"	933	
3	"	556	
6	"	2,622	
12	"	1,176	
49	"		16,894

ROBBEN ISLAND.

Number of skins taken	540
Total 1891	33,003

97. Details of the drives at North Rookery, Behring Island, during 1892 and 1891 taken from a memorandum by Alexander Selivanoff. South Rookery drives not given.

* 1892.

		Seals.
June	1	9
"	22	766
"	27	568
July	2	318
"	6	296
"	14	903
"	18	1,325
"	22	911
"	24	1,072
"	29	1,543
Aug.	5	1,288
"	7	1,127
"	11	1,487
"	12	846
"	16	980
"	20	1,132
Total North Rookery 1892		14,566

* 1891.

		Seals.
May	29	51
June	9	300
"	19	606
"	27	445
July	9	456
"	15	774
"	23	1,233
"	25	796

* The number of "drives" cannot agree with the figures given above, because those figures give the actual number of "drives," from different points of the rookery on the same date, thus making the number larger.

		Seals.
Aug.	2	678
"	8	1,642
"	19	1,842
"	25	1,060
"	29	1,550
"	31	1,218
Sept.	1	469
"	4	32
	Total North Rookery 1891	13,152

Recapitulation.

1893	30,290 skins,	including 1532 from Robben Island.
1892	31,589 "	none taken from Robben Island.
1891	33,003 "	including 540 from Robben Island.

98. The above figures represent the take of the present lessees of the Russian Seal Islands, and show an average killing of 31,627 seals *per annum*.

99. During the previous ten years, covering the last half of the term these Islands were leased to the Alaska Commercial Company, 458,701 seals were taken therefrom by that company, averaging annually 45,870; and during the three years immediately preceding the operations of the present company, 156,220 seals were taken, an average of 52,073 *per annum*.

100. Mr. Grebnitzky, the Russian Administrator on the Islands, states that the "drives" finished earlier in 1893, because of the agreement between Great Britain and Russia limiting the number to be killed, as well as from the fact that the seals were not so shy as they formerly were, by reason of the absence of pelagic sealers close in shore.

101. Mr. Julius Lindguist, at present resident at Petropaulovski, was on Behring Island during 1890, and up to August, 1891, in the employ of the Alaska Commercial Company. He lived at North Rookery as overseer of the operations there,

102. He stated that on occasions, the authorities allowed bulls to be slaughtered, for the purpose of making skin boats, &c. For this purpose, during 1891, twenty bulls were killed. It was his opinion that this practice was injurious, because there were not too many of this class of seals, and he thought that the bulls had too many females to serve. What he terms "half bulls" have, he says, sometimes been killed for making boats, &c. He deprecates this practice, because they are then nearly ready for rookery service.

103. Mr. John Malowansky, agent for the Russian Seal-skin Company, advanced the theory, that during the "drives," by the company's employees, thousands of seals are disturbed and forced to great distances over a rough and tortuous route, under most distressing conditions. A large percentage of these animals are not killed at the time, for various reasons; some escaping, some being turned back, others, not coming up to the standard after reaching the killing grounds. Nevertheless, the seals which have thus survived the "drives," have undergone all the harassing conditions thereof. This goes on day after day, the same seals in many instances being subjected to the ordeal time and again.

104. The reason he gives for forming this opinion is, that the pelagic sealers off Pribylov Islands have often told him that the seals would appear on certain days, and then as suddenly disappear.

105. It would not be surprising, if following a natural instinct of preservation, these seals, both male and female, instead of immediately returning to the rookeries

and hauling grounds respectively, should be frightened out to sea, until the immediate dread had sufficiently worn off to induce them to return to land.

106. In the light of all the circumstances connected with the sealing industry, and in view of the diversity of opinion, as to the feeding excursions of the seals from the islands, this theory may not be without force, and would seem to supply a better reason for migration than the theory of search of food or exercise, either of which can be had in any sufficient degree in the immediate vicinity of the islands.

107. Another reason is thus afforded for the presence of seals at sea, and one immediately due to the methods of killing practised by the lessees of the islands. If the seals cannot be proven either to go, or to be compelled to go, from the islands for food; then some other cause must be looked for, and if they leave the islands, once having established themselves there, some valid reason must be found.

108. If in the interest of the protection of seals, the dates of the "drives" on the respective islands were procured, on the one hand, and the dates of the killing by the pelagic sealers, in the vicinity of the islands fixed on the other, it might be established, that the catches of the pelagic sealers had some bearing upon the "drives" on the islands.

109. It was noticeable that in Japan, there was quite a deep-rooted prejudice against pelagic sealing, because the difference between the legitimate operations of the Canadian fleet, and the vicious habits of the poacher or raider, forming the only kinds of seal hunting hitherto understood there, could not be appreciated. Hence they were all classed together.

110. The presence, however, of a number of the Canadian sealers at Hakodate this year, brought them in contact with the officials there, and their methods have become better understood. H.B.M. Consul Hall, spoke quite highly of the Canadian sealers as a class.

EVIDENCE.

111. Briefly, the points for enquiry, embraced in my instructions may be put as follows:—

1. A careful examination of the supplementary Report of the British Behring Sea Commissioners, and of the report of Mr. Macoun's investigations of 1892 as indicating the particular facts concerning seal life which remained still in doubt.

112. I. Owing to my necessarily hurried departure from Ottawa, and the fact that neither of these documents had, up to that time, been communicated to the Canadian Government, it is a matter of regret that I was unable to avail myself of the assistance these papers would have rendered me, in my researches on the islands.

Only on my return to Hakodate *en route* to Yokohama, did they, together with my formal appointment from the Right Honourable the Earl of Rosebery, reach me.

113. 2. An examination of the facts bearing on the efficiency, or otherwise, of the protective zone around the islands, provided by the agreement; and a comparison of the circumstances existing under it, with those obtaining in 1891 and 1892.

(a.) (See also *c*). Whether females, whilst suckling regularly go to great distances from the breeding islands, and are killed by pelagic sealers; their young on the islands perishing in consequence.

M. Grebnitzky, Governor Komandorsky Islands.

114 (*a*.) To the question:—"Do female seals whilst suckling their young, regularly go to great distances from the breeding islands;" this official replied, that he did not think they went to great distances in July (the suckling month), as they then suckled three or four times per day. Later on, however, they suckled only once a day. He stated that young were found with milk in their stomachs, as late as November, and he added he could not account for this because he did not know how long the seals suckled their young.

115. Again, in answer to a question as to the earliest date at which females resort to sea after giving birth to their young; this official stated that he knew the females did go to sea to feed, *but only within sight of the rookeries, while they were nursing their young*.

116. And still further when asked if they then sought the sea for the purpose of feeding, he answered "yes; but not out of sight of the rookeries."

117. Asked as to his opportunities for observation, he replied: he had seen females go out for feeding, and he had seen in the stomachs of seals examined, food which could not be obtained in the immediate vicinity of the islands.

Alexander Selivanoff, Russian official at North Rookery, during killing season. Appendix No. 3.

118. During the time the female seals are suckling their young, they do not go to great distances to feed, but if the weather is fine and no storms are prevailing, they will go 8 or 9 miles from shore, but no further, while nursing. When the weather is stormy, and the sea is running high, the nursing females will go only a very short distance from the rookeries. This official states that he has seen a female seal nurse her pup early in the morning, leave the rookery for a few hours, return and again nurse the pup. During the month of June, when the pups are young, the mothers do not leave them for a longer time than about four hours. But later on, in July, when the pups are older, they will remain away for nine or ten hours at a time.

119. He states that he judges the distances from personal observations, with field glasses. It was his duty to supply the officials with all the information he could gather, during his daily observations of the rookeries and seals, and he watched the animals leave and return. He would not mistake females.

Alexey Badaeff. Seal "driver" Behring Island. Appendix No. 4.

120. The statement of this native is, that while the females are suckling their young, they do not wander far from the rookeries; in his opinion not further than five miles. They go this distance for food, of which they can find sufficient there. In warm weather, the females will also go into the water, though not in search of food, and at such times will remain quite close to the shore.

Waldemar Paetz, Agent Russian Seal-skin Company, Behring Island.
Appendix No. 2.

121. This witness says:
If females whilst suckling their young, do go off the rookeries for food, they do not go any considerable distance from the shore. They would go early in the morning and soon return to the rookeries. He also states, that he does not believe a breeding female will go far to sea for food, until the first week in September, because she can get food near the islands. He further expressed the opinion, that he did not believe any of the seals went far from the rookeries, from the time they landed until they departed in the fall; not further than the protective zone. Being able to get all the food they require close in shore, he could not see any reason for their making lengthy excursions.

Emile Klugé, agent Russian Seal skin Company, Copper Island.

122. Expressed the opinion, that females feed while suckling their young, because they go into the water for food, he thinks 50 or 60 miles off. He observed this while on Robben Island more particularly, because there is a better chance to see there, as the rock is small. He also expresses the opinion that "bachelors" probably go as far to sea as the females; "but," he said, "who can answer." Pups do not go far off shore; neither does he think the big bulls go off the rookeries, except in hot weather or when it is raining.

Mr. Julius Lindguist, agent for Messrs. Welsh, Hall & Co., at Petropaulosvki.

123. Mr. Lindguist was on Behring Island, in the employ of the Alaska Commercial Company, during 1890, and up to August, 1891. He lived at North Rookery, as overseer of operations there, in the interests of the company.
He expressed the opinion that the nursing females do not go far from the rookeries until August, but after that, he has seen herds of seals going off, including females, especially during stormy weather. They would not, he thought, go far from shore.

Capt. D. A. Grunberg, of the Russian Seal-skin Company's schooner "Léon," which called at Robben Island for the season's catch of seal-skins.
Appendix No. 5.

124. Being asked: "Do female seals, while suckling, regularly go to great distances from the breeding islands?" replied, "I do not think they do, while suckling." To the query: "Then the female seals killed at sea, are not mothers suckling their young?" he answered, "No, they are not. This might occur within a mile or two from shore, while in that condition, because at this time the mothers never go any further to sea."

125. He further stated that after the pups were weaned, the females go to greater distances off shore, and that, generally speaking, irrespective of sex, he has noticed that the seals go further off shore during the month of August than during the two previous months. That some of these seals are females is proven by the fact that the breeding places are thinned off at this time. He further believes that they can get all the food they need near the island, because they do not go beyond one or two miles therefrom.

126. Again, he says: After the 15th August he has noticed seals S. W. of Behring Island, as far as 80 miles off, he presumes looking for food. He could not say whether they were males or females; but if females, the young would at this time have been weaned, and able to take care of themselves.

Charles Leblanc, master of the sealing schooner "Sadie Turpel," Appendix No. 6.

127. States that of the catch around Komandorsky Islands, very few of the females taken had a full flow of milk. After the 8th August, he went north of the islands, and the females taken there were drying up in different stages.

William Sheilds, master and hunter of the sealing schooner "Vera." Appendix No. 7.

128. Says the seals taken off Copper Island were mixed, male and female; perhaps more females than males. About half of the females had a pretty free flow of milk, the other half appeared to be drying up.

Wentworth E. Baker, master of the sealing schooner "Oscar and Hattie." Appendix No. 8.

129. Early in July, the seals taken south of the islands were mostly males, with very few cows. The cows had a considerable flow of milk at that time. North of the islands, the females taken were drying up, and later on in August, there was hardly any sign of milk noticeable. He was one day 110 miles to the north; and he noticed the farther from shore he got the slighter the show of milk, while the females appeared to remain off the islands.

Melville Cutler, master of the sealing schooner "Agnes Macdonald." Appendix No. 9.

130. Says that of the seals taken on the Russian side, two-thirds were females having some show of milk, but in no instance did he observe a full flow; all having the appearance of various stages of drying up; while those last killed had a very slight show of milk.

131. The declarant states that he paid particular attention to this, as he remained in the vicinity for five days before getting any seals, and when they began to arrive, he mentioned to some of his men that they had prospects of a good catch, as the females were drying up, indicating that the pups must have been weaned, and that the seals might be expected to come off the islands.

W. H. Whitely, master of the sealing schooner "Mermaid." Appendix No. 10.

132. Says that on the whole, his catch off the Komandorsky Islands, comprised a small percentage more of females than males. The females taken in July were in fuller milk than at any other time. Those taken during the first part of August, were beginning to dry up, while towards the end of August, they showed clearly that they were drying, or had dried up.

John B. Brown, master of the sealing schooner "Walter P. Hall." Appendix No 11.

133. States that his catch around the Komandorsky Islands was about half male and half female. He could not say as to the stages of the milk, but he did not notice any particularly free flow.

William Cox, master of the sealing schooner "Sapphire."
Appendix No. 12.

134. Says he took some females in milk off Copper Island, but was unable to say as to the actual stage of the milk.

George Heater, master of the sealing schooner "Ainoko."
Appendix No. 13.

135. States that of forty-six seals taken off Komandorsky Islands, there were but four females. They all had a show of milk but were drying up, the milk being clotted and in small quantity. He adds, that the flow of milk from a suckling female is so great that it cannot but be noticed.

Alfred Bissett, master of the sealing schooner "Annie E. Paint."
Appendix No. 14.

136. States that the seals taken off the islands in July, were principally small males, a few straggling cows, some barren and some in milk. In August he got about an equal number of males and females. The females had a very slight show of milk, which had begun to turn yellow, thicken and dry up. After the 10th August, his positions ranged between 90 and 120 miles off shore, and the seals taken were principally males. The nearer the islands, the more females.

William O'Leary, master of the sealing schooner "Geneva."
Appendix No. 15.

137. Says he took probably more females than males off the Komandorsky Islands; and that none of the females were in full milk, though all had a slight show of milk, which was evidently drying up. He took care to observe the condition as to milk whenever it was possible for him to do so.

Thomas H. Brown, hunter on board the sealing schooner "Agnes Macdonald."
Appendix No. 16.

138. Says he killed this year 76 seals in the vicinity of Komandorsky Islands, between the 25th July and 5th September. Two-thirds of these were females, but not one of them had a full flow of milk. They all had signs of milk, but it was pretty well dried up, and towards the end of the season there was only a slight trace of milk left. He adds that he has been four years sealing in these waters, and the above has been about his experience, except that the first year he was nearer land and saw more bulls.

R. N. Crowell, master of the sealing schooner "Brenda," in 1892.
Appendix No. 17.

139. States that in 1892, he was master of the schooner "Brenda," on a seal hunting voyage in the vicinity of Komandorsky Islands. The seals he took there during August, and up to 7th September, were mixed males and females, the latter being in different stages of drying up, as regards milk; none showing a full flow.

Wm. Byers, master of the sealing schooner "Carlotta G. Cox."
Appendix No. 18.

140. Took fewer females in the neighbourhood of Komandorsky Islands than ever before, there was more of a mixture of males, being nearly half of that class. Up to the 20th July, most of the females taken were in full milk, but after that it was quite apparent that the milk was drying up and intermixing with the fat. In these waters, prior to and including the 20th July, he took 29 seals all told.

Abel Douglas, master of the sealing schooner "Arietas."
Appendix No. 19.

141. The seals secured around Komandorsky Islands were mixed cows and males, a few more females than males, and a large number of non-breeding seals, young males and females. Of the females, comparatively few had a full flow of milk, they being the first taken. In most of the females the milk was drying up, and he is of opinion the pups must have been weaned. Towards the end of the season, only the slightest trace of milk was observable.

Mr. Chichkine in his letter to H. M. Ambassador at St. Petersburg, 29th May (10th June) 1893.

Correspondence, Russia, No. 3 (1893), page 5.

142. Writing of the case of the British sealing schooners "Willie MacGowan" and "Ariel," seized by the Russian authorities in 1892, says: * * * "as well "as of 76 skins, of which 69 had been "taken from female animals, *who must have* "*therefore been killed close to the shore;* 90 "per cent of the skins found on board the "Ariel" had probably also been taken from "nursing females, *and belonged to seals* "*caught in Russian territorial waters.*" * *

Report of the Russian Commission, appointed to enquire into the seizures of 1892.
Correspondence, Russia, No. 3, 1893. page 12.

143. In the case of the schooner "Marie," it is said: "Next morning search "was made, both on the schooner and in "the boats, which had rejoined her during "the night, and 622 seal-skins were found, "of which 585 were those of females, *and* "*consequently had been taken close to the* "*shore.* * * * * *" "The skins taken from pregnant females, "bear witness to the fact that the seals had "been killed close to the shore.* *In fact,* "*during the period of suckling, in July and* "*August, the females cannot go from the* "*shore.*"

144 (*b.*) The mortality of "pups" on the islands. More particularly during the year 1892, as compared with 1893.
Mr. Grebnitzky, Governor of Komandorsky Islands.

145. About four years ago, in very stormy weather, he noticed many more dead pups (grey) than usual. With regard to dead pups on the rookeries very little can be told, because the officials do not go on the rookeries. In the fall, after the seals have left, the number of dead pups might be observed, but even then the crows, foxes and gulls remove them. The dead pups are not counted after the season is over. No record of them had been taken, but during the past two years he has not observed many dead pups. Asked how the present year compared with 1892 in this respect, Mr. Grebnitzky said that the same answer applied. To the question as to the different causes attributable for the death of "pups," Mr. Grebnitzky replied that he had never noticed any disease; sometimes they were killed by the surf and sometimes the bulls crushed them.

Alexander Selivanoff, Russian official at North Rookery during killing season.
Appendix No. 3.

146. States that he believes there were more dead pups in 1892 than in 1891 or 1893. He did not count them, but there appeared to be more. He attributed the death of these pups to storms, and surf, while many are crushed by the bulls. In the autumn, during stormy weather, many pups are killed by the waves.

* Italics are mine.

Alexey Badaeff, seal "driver," Behring Island
Appendix No. 4.

147. Says that during the year 1892, there were more dead pups on the rookeries than in 1891 or 1893.

148. He places the figures in 1892 at 300 on North Rookery, and he expresses the opinion, that these pups were killed by the bulls crushing them, and by the surf, during storms; stating that he knows of no other cause of death except that a few may be born dead.

Waldemar Paetz, agent Russian Seal-skin Company, Behring Island.
Appendix No. 2.

149. Has neither observed nor heard of any more dead pups one year than another during his stay there. What few dead pups there are, from year to year, are mostly killed by the surf during storms.

Emile Klugé, agent Russian Seal-skin Company, Copper Island.

150. Says there were not many dead pups on the rookeries at Copper Island this year. There were fewer than last year, because there were not so many pups born. There are always a few dead pups. He attributed their death to the bulls crushing them and to the surf during storms; also a few drowning while learning to swim. He was unaware of any natural enemies in the sea, or epidemic.

Julius Lindguist, agent for Messrs. Welsh, Hall & Co., at Petropaulovski.

151. Expresses the opinion that there are several hundred young pups crushed by the bulls yearly, and the larger pups are sometimes killed by the surf in the fall of the year. He would place the mortality at 300 or 400 on each island annually. He is not aware of any epidemic, and the above is the only cause of death he knows of.

Capt. D. A. Grunberg, of the Russian Seals-kin Company's schr. "Leon."
Appendix No. 5.

152. Says a considerable number of pups perish on the islands; some are drowned in the surf while yet young and learning to swim, a small number are smothered by the breeding animals, others are crushed by the bulls.

Thomas H. Brown, hunter on board the sealing schooner "Agnes Macdonald."
Appendix No. 16.

153. States that, in the year 1888, he went as a boat steerer on board the sealing schooner "Maggie Mac." His boat got quite near the shore of Copper Island, and they were fired upon, several bullets piercing the boat. He noticed about one hundred dead pups floating in the water, from a few hundred yards to half a mile off shore. He does not think there were more than two or three vessels sealing around the islands that year. He could give no opinion as to the cause of the death of these seals.

154. (*c.*) *See* also (*a*). The length of time during which a pup is necessarily suckled by its mother, before weaning, and the earliest date the mother may resort to sea after giving birth, whether for food, and to what distance.

Mr. Grebnitzky, Governor of Komandorsky Islands.

155. States that from actual observation, he can say that a pup is necessarily suckled by its mother from one and a-half to two months. He cannot say how soon they will resort to the sea, after giving birth to their young.

Alexander Selivanoff Russian official at North Rookery during killing season. Appendix No. 3.

156. From observations made, he is of opinion, that a female seal will suckle her young three or four weeks before weaning, but he would not like to express an opinion as to how long after giving birth to her pup she would take to the water for food.

Alexander Badaeff, seal "driver" Behring Island. Appendix No. 4.

157. Says that he has personally observed pups suckling, the whole time that the seals were on the rookeries, and he believes that the females nurse their young four months. This witness also states that he has seen females nursing their pups in the water. He could not say how soon after giving birth to their pups, the females sought the water for food.

Waldemar Paetz, agent for Russian Seal-skin Company, Behring Island. Appendix No. 2.

158. From his own observations, and from what he has been able to gather from the natives, Mr. Paetz believes he can safely say that a female will suckle her young three or four weeks before weaning it.

Emile Klugé agent for Russian Seal-skin Company, Copper Island.

159. Cannot say how long a pup is necessarily suckled before weaning.

Julius Lindquist, agent for Messrs. Welsh, Hall & Co. at Petropaulovski.

160. Is of opinion that a female will not suckle her young more than a month and a half, but observations on the islands are handicapped, because they are not allowed to go on the rookeries.

Capt. D. A. Grunberg, of the Russian Seal-skin Company's schooner "Leon." Appendix No. 5.

161. Cannot say how long pups are necessarily suckled by the mothers before weaning, and would not like to give an opinion as to the earliest date the mothers take to the water, after weaning their young.

Wm. O'Leary, master of the sealing schooner "Geneva." Appendix No. 15.

162. States that in previous years he observed, in Behring Sea, odd females in full milk, 80 miles off shore, and afterwards would get females in which the milk was drying up. He judged from this that the females do not suckle their young longer than from four to six weeks.

163. *(d)* As to the existence of "Banks" or sealing grounds around the Komandorsky Islands, which banks His Excellency M. Chichkine, 12th (24) February, states, are frequented during certain seasons by the female seals, the killing of which is particularly destructive to the seal species, at the time of the year when the females are suckling their young, or go to seek food on the banks known as the sealing grounds, which the 30-mile zone is designed to protect.

Capt. A. M. Domojiroff, Commander of the Russian cruiser "Zabiaka."

164. Stated that he had sounded for these "banks" as far as forty miles off the islands, but had been unable to locate any such "banks."

Capt. Chmeilevski, Commander of the Russian cruiser "Yakout."

165. Said, with regard to the existence fo "sealing" or "fishing banks," he cruised forty miles from the islands, endeavouring to find them, and although within this distance he sounded for them, he found no evidence whatever of their existence. He did not search for them beyond forty miles from land.

Mr. Grebnitzky, Governor of Komandorsky Islands.

166. Stated that he had no personal knowledge of feeding "banks," for seals at sea, or of their location, but he had heard of such from those on board the men-of-war and the sealing schooners. In his report to the Russian Government he says he thinks the seals migrate further from Komandorsky Islands than from the Pribylovs, for feeding purposes, as there are a number of shallow banks which afford food. These banks, he says, are situated to the southward of Copper Island, and to the northward of Behring Island, about 150 miles. He bases this opinion on the charts of confiscated schooners, showing where seals are taken.

Emile Klugé, agent for the Russian Seal-skin Company at Copper Island.

167. When asked with regard to the presence of feeding grounds or banks around the islands, he replied that he had no personal knowledge of such, but that the schooners reported feeding grounds E.S.E. and E. of Copper Island, about 60 or 70 miles distant; that is to say they caught the seals there.

Captain Grunberg, of the Russian Seal-skin Company's schooner "Leon." Appendix No. 5.

168. Asked if he had any knowledge of "feeding banks," in the vicinity of the Russian Seal Islands, answered that he had no personal knowledge of the existence of such banks, but he had heard that they did exist to the south-west of Behring Island, about 80 or 85 miles off, and to the south of Copper Island, but he had not heard how far off the latter island.

Charles Leblanc, master of the sealing schooner "Sadie Turpel." Appendix No. 6.

169. Knows of no "banks" to the southward of Komandorsky Islands, but there are plenty of surface fish, as far out as 200 miles—squid and small fish of different kinds.

Wm. Sheilds, master and hunter of the sealing schooner "Vera." Appendix No. 7.

170. Sounded around Copper Island with200 fathoms of line, but was unable to get any soundings. He never heard of anyone who had succeeded, and he knows of no "banks" there. He has noticed a good many squid around the island about 30 miles off, cut to pieces, probably by feeding seals. He has seen seals eating squid. In Behring Sea he has seen them eating cod.

Wentworth E. Baker master of the sealing schooner "Oscar and Hattie." Appendix No. 8.

171. Does not know of any "banks" around Komandorsky Islands, where soundings can be obtained. He has tried for soundings three seasons, but has never been able to get any, although he has used 120 and 200 fathoms of line. In certain places, a discolouration of the water occurs which has the appearance of soundings, but none can be obtained. In his opinion this probably accounts for the reported "banks."

Otto Bucholz, master of the sealing schooner "Casco."
Appendix No. 20.

172. Has no knowledge of any "banks" to the southward of Komandorsky Islands. Last year, when there was no protected area, he was as close as 15, and as far off as 100 miles. This year, he kept off an average distance of 45 miles, and never found any "banks," although he tried for bottom fish, but could never get soundings with 120 fathoms of line. All the sealers he has spoken to on the subject, have had the same experience. On so long a voyage, fresh fish is a luxury and they all try for them. The above, he says, applies also to the Japan coast, where the seals are taken entirely out of soundings.

Melville Cutler, master of the sealing schooner "Agnes Macdonald."
Appendix No. 9.

173. Knows of no "banks" to the southward of Komandorsky Islands, where soundings can be got: but there are plenty of surface fish to be found. 50 or 60 miles to the southward. He has seen quantities of dead squid, which had been mutilated by seals, and he also observed many salmon jumping out of the water, during his stay in the vicinity of the Russian Islands, between 25th July and 5th September. In fact he was among fish all the time.

W. H. Whitely, master of the sealing schooner "Mermaid."
Appendix No. 10.

174. Does not know of any "banks" to the southward of Komandorsky Islands. Last year he tried for bottom fish, about 30 miles off with 100 fathoms of line. He has never heard of anyone else finding soundings.

175. There is a small "bank" in Lat. 53° N. Long. 170° E., 75 miles south west of Attou Island. It is a very small "bank"; the shoalest part is 70 fathoms deep, but it is so small it is almost impossible to keep on it. This is off the most easterly American Island.

176. There are large quantities of squid around Komandorsky Islands, everywhere, as far off as 100 miles

John B. Brown, master of the sealing schooner "Walter P. Hall."
Appendix No. 11.

177. Is not aware of any "banks" around Komandorsky Islands, neither does he know of any sealers who have ever got soundings there. There is an abundance of squid and salmon, as far off as 150 miles.

William Cox, master of the sealing schooner "Sapphire."
Appendix No. 12.

178. There are no "banks" to the southward of Copper Island, where sealers have ever been able to get soundings, though some sealers have reported a small "bank" S. W. of Attou Island, 75 miles off, but he thinks they have never found bottom, judging only from the colour of the water.

George Heater, master of the sealing schooner "Ainoko."
Appendix No. 13.

179. Does not know of any "bank" around Copper Island. The most of the seals he got there were taken about 50 miles off shore.

Alfred Bissett, master of the sealing schooner "Annie E. Paint."
Appendix No. 14.

180. Has seen discoloured water, which certainly had the appearance of soundings, but he has never heard of any having been got, although he has tried with 150 fathoms of line.

181. Squid, salmon and other fish, in quantities, can be found from 60 to 120 miles off.

Wm. O'Leary, master of the sealing schooner "Geneva."
Appendix No. 15.

182. Knows of no "banks" around Copper Island. He has never been able to get any soundings, nor has he heard that anyone else has ever succeeded. He has seen salmon and squid from 50 to 90 miles off shore.

Thomas H. Brown, seal hunter on board schooner "Agnes Macdonald."
Appendix No. 16.

183. Has never known of any "banks" around the Komandorsky Islands. Hunters do not know much about the position of the ship, but he has seen salmon jumping around the boat, outside the 30-mile limit, and there were plenty of squid in the same locality.

R. N. Crowell, master of the sealing schooner "Brenda," in 1892.
Appendix No. 17.

184. Says that during the year 1892, he went on a seal hunting voyage around the Komandorsky Islands, as master of the schooner "Brenda." The only bank he knows of in the vicinity is north of Behring Island, off Cape Olgontorsky. The centre of this "bank" is about in latitude 58° N., longitude 170° E. Soundings can be had from 40 fathoms up.

Wm. D. Byers, master of the sealing schooner "Carlotta G. Cox."
Appendix No. 18.

185. Knows of no "banks" to the southward of Copper Island. He has sounded with 100 fathoms of line, looking for fish about 50 miles off, but could get no soundings.

186. Squid, salmon and other fish are plentiful 100 miles off.

Abel Douglas, master of the sealing schooner "Arietas."
Appendix No. 19.

187. Has tried for fish to the southward of Komandorsky Islands, but could get no soundings. There are no "banks" there. In some places, the water has the appearance in colour as though soundings existed, and this doubtless accounts for reported "banks." Plenty of squid and salmon off the Island in July and August.

188. (*e.*) Whether, in the event of females occasionally dropping their young at sea, or losing them on the islands, and being thereafter found still in milk, at great distances from the rookeries, they would resort to and remain on the islands.

Mr. Grebnitzky, Governor of Komandorsky Islands.

189. On this point, expresses the opinion that the females, under such circumstances, would remain on shore, but that they would not copulate. In his report to the Russian Government, a synopsis of which is appended hereto (Appendix No. 1) he says: "Some females, "which are disturbed in their migrations "to the breeding rookeries, lose their pups "in the water. They are then liable to "illness, and some die, before reaching the "rookeries. Those of them which succeed "in reaching the shore, lose the instinct "which calls for service of the bulls."

190. Again he says: "If a female loses "her pup in the water, she can be readily "distinguished by the condition of the fur, "which is rough and thin under such cir- "cumstances."

Alexander Selivanoff, Russian official at North Rookery during killing season.
Appendix No. 3.

191. Expresses the opinion that if a female lost her pup at sea, she would come to the rookeries; because he has seen barren females on the rookeries, having no pup to look after. If she lost her pup on the rookery, she would remain there for service by the bull

Alexey Badaeff, seal "driver" Behring Island.
Appendix No. 4.

192. Cannot say what a female would do in case of losing her young, either at sea or on the rookery.

Waldimar Paetz, agent for Russian Seal-skin Company, Behring Island.
Appendix No. 2.

193. Expressed the opinion that if female seals should drop their young at sea, or lose them on the islands, they would remain on the islands, just the same as the other breeding females, as to give birth to their young is not the only reason for their migrations to the islands. Their natural instinct also brings them there to receive service of the bulls. He considers this proven by the fact that there are some barren females, which remain on the islands although having no young.

Emile Klugé, agent for Russian Seal-skin Company, Copper Island.

194. Says he believes that if females lost their pups at sea they would go to the islands; if they lost them on the islands, they would remain there for service according to natural instinct, but this, like other matters, he says is difficult to state.

Mr. Julius Lindguist, agent for Messrs. Welsh Hall & Company at Petropaulovski.

195. Was not in a position to express an opinion as to what females would do in the event of losing their pups, either at sea or on land.

Captain D. A. Grunberg, of the Russian Seal-skin Company's schooner "Leon."
Appendix No. 5.

196. Expressed the opinion that there may be premature births, with seals as with other animals, and that if a female lost her pup at sea, he thinks she would resort to the islands, and if she lost her pup on the islands, he believes her natural instinct would keep her there.

197. Although perhaps not bearing directly upon the main point of the question, incidentally, the observations of some of the pelagic sealers may be noted here.

Charles Leblanc, master of the sealing schooner "Sadie Turpel."
Appendix No. 6.

198. Says: During the latter part of June between Yesso and Sikotan Islands, on the Japan coast, he got between 20 and 30 females in milk from 30 to 40 miles off shore.

Note.—It is quite evident that these seals had either pupped on the Japan Islands or lost their pups at sea.

Wm. Sheilds, master and hunter of the sealing schooner "Vera."
Appendix No. 7.

199. Says that during the last week in June, and the first 12 days in July, off Staten Island, one of the Kuriles, he took a few cows in full milk, although very few.

W. H. Whitely, master of the sealing schooner "Mermaid."
Appendix No. 10.

200. Off the Japan coast, on the 19th day of June, got two or three females in full milk. As the day was foggy he could not get exact positions, but he was about 50 miles off. He remarks that these seals must have come from some rookery, or have dropped their pups in the sea. On the same day he also got his last seals in pup.

John B. Brown, master of the sealing schooner "Walter P. Hall."
Appendix No. 11.

201. About the end of June, on the Japan coast, off Yesso, he got a few female seals in full flow of milk. These seals had either pupped on the shore or dropped their young at sea.

Wm. Cox, master of the sealing schooner "Sapphire."
Appendix No. 12.

202. On the 8th and 9th July, between Rat Islands and Agattu, (American side), 80 miles oceanward, he saw plenty seals and got one female in milk.

Note.—This is very far from any of the known rookeries.

203. During the month of May this year on the "Fairweather Grounds," American coast, about 60 miles off shore, he saw three females with pups swimming alongside, about three or four weeks old. These seals had never reached the Pribylov Islands.

George Heater, master of the sealing schooner "Ainoko."
Appendix No. 13.

204. The only female seal he took this year, which he could positively state was nursing, was one got off Shumagin Island —off Sand Point—on the 13th day of June. When she was opened, the milk flowed freely over the deck. He states that this seal must have dropped her pup at sea, or pupped on Shumagin Island.

Alfred Bissett, master of the sealing schooner "Annie E. Paint."
Appendix No. 14.

205. Says: On the way to Copper Island about 100 miles S. $\frac{1}{2}$ E. (true) off Amchitka Island, he took eight seals while crossing the 180 meridian on the 4th day of July. Four of these eight seals were females heavy with pup. He does not know whether they were going to the Russian or American side; but he is certain that they could not have reached either of the known seal rookeries in time, as they were too far advanced.

R. N. Crowell, master of the sealing schooner "Brenda" in 1892.
Appendix No. 17.

206. Expresses the opinion, that somewhere on the North American coast, between Queen Charlotte Islands and Unimak Pass, there must be a seal rookery. He bases this opinion on the fact that female seals are taken there, so heavy with pup that it would be impossible for them to reach any of the known rookeries, before dropping their young on the way.

207. (*f.*) Respecting the actual migration routes of the fur seals, of the Asiatic side of the Pacific, in going to and returning from the Komandorsky Islands, with their winter habitat, in the vicinity of the Japanese Coast.

Capt. Domojiroff, of the Russian cruiser "Zabiaka."

208. Had not been sufficiently long in the vicinity to observe very closely the migration routes of the seals, but he

gathered that they worked along the Japan coast in the spring, and returned in very much the same direction, in the fall. He was unaware of their winter habitat.

Capt. Chmeilevsy, of the Russian cruiser, "Yakout."

209. Touching the question of migrations, considered it a very difficult subject upon which to express any decided opinion. The master of the seized schooner "Maud S." informed him, that in April and the beginning of May, in passage from Yokohama to Hakodate, he caught about 400 seals on the eastern side of Nipon Island. This and similar evidence, was all he had to depend upon for his opinion of their migrations to the islands. He had no personal knowledge, and it was difficult to tell, the seals coming in all directions. He has been generally informed, that the seals go to the S. E. in the winter, but of their winter habitat he knows nothing.

Commander Burr, of H.M. cruiser "Porpoise."

210. Had not observed much with regard to the migration routes of the seals, and was unable to give any positive information on this branch of the subject.

Mr. Grebnitzky, Governor of Komandorsky Islands.

211. Preferred not to make any statement on this point, as it was his intention shortly to publish a work on the subject. In his report to the Russian Government, a synopsis of which is appended, he states that the seals migrate from the Komandorsky Islands about the middle of November, moving south to the Japan sea. Herein he also states, that the Robben Island herd move down the Japanese coast in the same direction, and seals are found landed on islands inside the Kuriles. Some instead of going to Robben Island, distribute themselves on other islands in the Okhotsk Sea.

Alexander Selivanoff, Russian official at North Rookery during killing season.

Appendix No. 3.

212. Could not say much about the migration routes of the seals, or of their winter habitat, but they come from S. E. and return in the same direction

Capt. D. A. Grunberg, of the Russian Seal-skin Company's schooner "Leon."

Appendix No. 5.

213. States that in going to the islands, everything indicates that the seals approach from the southward and southwestward. In going from the islands, he cannot say as to what route they may take. His reason for stating that they come from the south and south-west is, that they first land on the south-west part of Copper Island, following along that island, landing as they go, on the several rookeries. Thence keeping the same direction, along shore, to Behring Island, landing on the rookeries there. As to their winter habitat he knows nothing.

Mr. John Malowansky, agent of the Russian Seal-skin Company, on board the Company's steamer "Kotik."

214. Gave me an extract from a letter from Mr. John G. Welsh, of the firm of Welsh, Hall Company, of Yokohama. This letter was dated 17th April, 1893, and as it touches the question of migrations the extract may be given as follows:

"It may interest you and your friends "of the Seal Company, to know that the "schooners which lately left here (about "20 to 25 in all, with 15 or 20 more going "direct from your side), are reported to be "having good success. One of them re- "turned here yesterday for repairs, and "brought 350 sealskins, which were taken "in two days. Some are said to have taken "1,000 skins, also in a very short time. "The Captain of the returned schooner, the "'Arietas,' told me that all the seals are "captured in the sea about 150 miles east "and 250 miles north of this harbour."

This letter was addressed to Mr. Malowansky, at San Francisco.

Charles Leblanc, master of the sealing schooner "Sadie Turpel." Appendix No. 6.

215. So far as the migration route of the seals to the Islands is concerned, he can only say he met them on the Japan coast on the 19th day of April in latitude 39° 22′ N., longitude 143° 12′ E., and followed them along the coast until the 4th of July in latitude 44° 58′ N., longitude 149° 25′ E., his average distance from shore being about 30 miles. He lost the herd about 50 miles east of Sikotan, at the beginning of the Kuriles.

Wm. Sheilds, master and hunter of the sealing schooner "Vera." Appendix No. 7.

216. Says that he met the seals on the 29th day of March, off the Japan coast, northward of Yokohama, in latitude 34° 46′ N., longitude 140° 03′ E., and found them all along the coast to Staten Island, one of the Kuriles, ranging say between 35 and 45 miles off shore. He lost the herd off the northern part of Staten Island.

217. For two or three days during the first week in June, he noticed a lot of cows, travelling along the coast to the northward. The positions being between 39° and 41° north latitude and 144° and 146° east longitude.

Otto Bucholz, master of the sealing schooner "Casco." Appendix No. 20.

218. Gives as his experience as to the migration routes of seals to the Komandorsky Islands, that he first encountered them off the Island of Nipon, in April and May, at a distance of between 20 and 70 miles from shore; his first position being latitude 40° 31′ north, longitude 143° 42′ east. He followed them along the coast to latitude 43° 25′ north, longitude 146° 28′ east. The herd disappeared in the latter end of June, off Sikotan Island.

Melville Cutler, master of the sealing schooner "Agnes Macdonald." Appendix No. 9.

219. First saw the seals this year about 200 miles north of Yokohama, from 180 to 200 miles off shore, during the first week in April. He found them all along the coast of Nipon, and some along the coast of Yesso. Off the northern part of Yesso, he lost the herd, and did not see them again until off Komandorsky Islands. On the Japan coast he began sealing the 2nd day of April and continued until 23rd June, his positions ranging between latitude 38° and 43° north, longitude 142° and 147° east.

W. H. Whitely, master of the sealing schooner "Mermaid."
Appendix No. 10.

220. With respect to the migration routes of seals to Komandorsky Islands, this year he met them on the 25th day of March, in latitude 36° 10′ north, longitude 145° east, 200 miles off Cape Inaboye, about 60 miles north of Yokohama. He followed them up the coast to Sikotan Island. There he lost them about the latter end of June and met them again off Komandorsky Islands.

John B. Brown, master of the sealing schooner "Walter P. Hall."
Appendix No. 11.

221. First met the seals 7th April in latitude 36° 38′ north, longitude 144° 07′ east, off the Japan coast, and followed them up until the 29th day of June, in latitude 42° 53′ north, longitude 145° 18′ east. Off Akishi, the seals began to travel north, and from that out all he took on the Japan coast were travellers.

George Heater, master of the sealing schooner "Ainoko."
Appendix No. 13.

222. Never having sealed on the Japan coast, cannot express any personal opinion as to the migration route of seals to the Russian Islands, but the sealers tell him they work up the Japan coast at various distances along Nipon Island.

Wm. O'Leary, master of the sealing schooner "Geneva."
Appendix No. 15.

223. Says he cannot say where the seals strike the coast of Japan, but they were there when he first lowered his boats for them off Nipon Island, on the 1st day of April, latitude 38° 15′ N., longitude 143° 12′ E. He followed them up to the 7th of July, in latitude 43° N., longitude 155° 58′ E., along the Islands of Nipon and Yesso, and found them all the way from 60 to 300 miles off shore. Between 1st April and 7th July, during his stay on the Japan coast, his positions ranged between north latitude 38° 15′ and 43°, and east longitude 142° and 155° 58′. He cannot say as to the movements of the seals after leaving the islands in the fall, but he believes they are to be found all winter where he found them in the spring, and until they go back to the breeding islands.

Abel Douglas, master of the sealing schooner "Arietas."
Appendix No. 19.

224. Shows that he took his first seals on the Japan coast, on the 7th day of April, in latitude 37° 35′ N., longitude 144° 33′ E., and the last on the 24th day of June in latitude 44° 7′ N., longitude 147° 30′ E. Between these dates, and along that coast, his positions ranged from 37° 28′ to 44° 7′ N. latitude, and from 143° to 147° 30′ east longitude.

August G. Bjerre, master of the sealing schooner "Beatrice."

225. The positions given by this sealing captain show: That he first met the seals on the Japan coast, 21st March, in latitude 37° 11′ N., longitude 142° 34′ E. He followed them until the 21st June, in latitude 41° 41′ N., longitude 142° 18′ E. The range of his position on the Japan coast, was from 37° 11′ to 43° 9′ north latitude, and 142° to 146° east longitude.

Abel Douglas, master of the sealing schooner "Arietas."
Appendix No. 19.

226. Took his first seals on the Japan coast on the 7th day of April, in latitude 37° 35′ N., longitude 144° 33′ E., and the

last seals there on the 24th June in latitude 44° 7′ north, longitude 147° 30′ east, his positions between these dates along that coast, ranging as above.

Wm. Byers, master of the sealing schooner "Carlotte G. Cox."
Appendix No. 18.

227. Met the seals on the Japan coast on the 28th March, in latitude 39° 22′ north, longitude 145° E. He sealed along the coast until the 30th June, on which day he took the last seals on the Japan coast. During this period his positions ranged from 39° to 43° of north latitude and 142° to 146° of east longitude. From Yokohama up, he says the route of the seals lies parallel with the coast of Japan, and the Kurile Islands, at distances ranging from 20 to 200 miles off. He believes they winter between latitude 38° and 41° north, as from 28th March to 30th May, he took them between these positions continuously.

228. (*g.*) The average dates of landing and departure from the islands, of seals of different sexes and ages, particularly if those can be obtained for a series of years.

229. Whether females land on the islands, from the time they leave them as pups until they return to give birth to first pup.

Mr. Pafski, administrator Komandorsky Islands.

230. On leaving Nikolski Mr. Grebnitzky referred me to Mr. Pafski (who was to replace him during his absence) for information on this point. An examination of the records by Mr. Pafski, however, revealed the fact that no positive dates could be given from year to year, of the arrival and departure of the different classes of seals. For instance, in 1893, on North Rookery, the first bull arrived on the 4th May; on the 6th 2 more arrived; on the 9th 4 arrived; on the 10th 5 bulls and 1 holluschickie. On the evening of the 10th, 6 bulls. On the 12th, 23 bulls, 2 females and 1 holluschickie. In the water close to the rookery, this day, there were 12 seals. On the 14th, 28 bulls arrived, 9 holluschickie and 3 females; on the 18th May, 40 bulls, and close to the rookery 5 females. In the evening of that day 1 bull. On the 20th, 12 bulls; 24th May, 90 bulls and 50 holluschickie; on 31st May, 100 bulls and 70 holluschickie, also, 80 females, and another herd of 25 females. On the 1st June, 130 holluschickie, 28 females and 28 bulls; on 2nd June, 100 females and 160 holluschickie. On the 3rd June, the bulls chose their females, and the holluschickie took other places. No further information is given, except that the bulls started to leave about the middle of August, but the other seals were still (4th Sept.) on the rookeries.

(All Russian dates.)

231. This accounts for very few seals on the rookeries, and it is quite evident that any attempt to establish their arrival in this way must necessarily prove impracticable.

232. It was gathered, however, from the officials on the island, that generally speaking the seals commence to arrive in May and remain until the middle of November. They arrive in about the following order: First bulls, then females; then females and holluschickie mixed, principally holluschickie. The bulls begin to leave about August, and the females and holluschickie leave in October and November. When they begin to come in large numbers, in the latter part of June and July, it is difficult to distinguish them. It is also most difficult to keep track of the number of bulls arriving from day to day. They have no reliable records.

233. To the query as to whether females land from the time they leave as pups, until they return to give birth to their first pup—Mr. Pafski replied that a large number of young females were on the islands this year: females that were not breeding.

Alexander Selivanoff, Russian official at North Rookery during killing season. Appendix No. 3.

(Russian dates.)

234. In 1892, the seals arrived on the island as follows:—

First, the Bulls, the first arriving on the first day of May, and from that forward coming gradually until 1st July; this is the reason that a few bulls will be found later in the fall on the rookeries.

Second, Females. The first females arrived on the 20th May, and from that forward they kept arriving until the 15th July, by which time all the females were on the rookeries.

Third, the holluschickie arrived about the same time as the females, but continued arriving the whole time, until about the 15th August.

235. They departed as follows, in 1892: The bulls first, he cannot say the actual time of leaving. As the seals come they leave—gradually; they began to leave about the 1st October, and had all left the islands by the 12th November. The bulls had nearly all gone, by the time the others started to leave.

236. This official left the rookery in 1893, and did not observe the landing and departure of the seals. The first bull arrived on the 28th April, alone.

237. He has seen young females, (yearlings) every year on the rookeries. Last year, he made a "drive," thinking to take about 2,600 skins, but he discovered there were over 1,000 young females, mixed with the holluschickie.

Alexey Badaeff, Seal "driver" Behring Island. Appendix No. 4.

238. Generally speaking, from year to year according to the weather, the seals arrive at the rookeries as follows:—The bulls come first, arriving about the 20th April; next the females, during the first part of May. The holluschickie come about the same time as the females. The bulls begin to leave the rookeries first. The bulk of the seals leave the islands, between the 1st October and 20th November; none

being on the rookeries after the latter date. He judges that young non-breeding females land on the islands, from the fact that he has seen young females mixed in a drive of bachelors.

Waldemar Paetz, agent for the Russian Seal-skin Company at Behring Island.
Appendix No. 2.

239. Says there is no doubt female seals land on the islands, before they visit the rookeries to give birth to their first pup; because young females are often observed mixed with the holluschickie and otherwise.

Emile Klugé, agent for the Russian Seal-skin Company at Copper Island.
Russian dates.

240. Seals first arrive every year about the end of April. The bulls reach the islands at that time. In the latter part of May, a few holluschickie arrive. The breeding females arrive about the beginning of June. They pup almost immediately. Holluschickie arrive gradually, from their first coming until the middle of July. The yearlings arrive about the commencement of August. The big bulls do not leave the rookeries until the latter part of July, at which time they are very thin and go to the feeding grounds.

Mr. Julius Lindquist, agent for Messrs. Welsh, Hall & Company at Petropaulovski.

241. The large bulls arrive on the islands during the latter part of May. They are followed by a few of the larger "bachelors," or "half bulls," and some females about the 1st June. The females arrive slowly and the bachelors arrive with them. By the first part of July, all the females are on the rookeries. The bulk of the "killables" arrive after 1st July, the largest run being during the end of July and 1st August. By the middle of August, all the seals are on the rookeries.

Russian dates.

242. Young females do resort to the rookeries before they return to give birth to their first pups, because they are found there, mixed with the bachelors.

Captain D. A. Grunberg, of the Company's schooner "Leon."
Appendix No. 5.

243. Female seals do land on the islands before they return to give birth to their first pups. The reason he is positive of this is, that young immature females are often found mixed up in a "drive."

244. (*h.*) The State of Komandorsky Islands, in years of scarcity or of abundance of seals on the Pribylov Islands. As to whether these two groups of islands are similarly affected, in the same years, and generally, any effect upon the Komandorsky Islands, believed to be due to practices upon Pribylov Islands or Robben Reef.

Mr. Grebnitzky, Governor of Komandorsky Islands.

245. States that the seal herds of the Komandorsky and Pribylov Islands, are absolutely distinct, consequently no operations on either could affect the other. The seals which summer on Robben Island, do not visit Komandorsky Islands. Seals also haul out on the Japan Islands, and they all winter in the same place as those which visit Komandorsky Islands.

Alexander Selivanoff, Russian official at North Rookery during killing season.
Appendix No. 3.

246. Could give no opinion on this subject; but he noticed on the North Rookery, last year, three bulls which were very different in appearance from the bulls resorting to Komandorsky Islands. They had long manes on the back of their necks. These bulls caused considerable discussion among the natives. One man who had come from St. Paul, Pribylov Islands, named Efim Snergiroff, stated that they had come from that island, as they were the same as he had seen there. There were also two holluschickie, which were very different from those of Komandorsky Island, the hair being quite black.

Waldemar Paetz, agent for the Russian Seal-skin Company at Behring Island.
Appendix No. 2.

247. Operations on Pribylov Islands, could in no way affect the Komandorsky Islands. He is decidedly of opinion that the seal herds which frequent these two groups, are separate and distinct. Last year he handled the skins taken from the seized schooner "Rosie Olsen," among which, were some taken on the American side, and he observed such a marked difference in the appearance of these skins, as compared with those taken on the Russian side, that it convinced him of the distinctness of the herds. He also believes that although, practically of the same herd, the seals which visit Robben Island never get so far up as the Komandorsky couplet, and he concludes that no operations on Robben Island could affect those islands in the least degree.

Emile Klugé, agent for the Russian Seal-skin Company at Copper Island.

248. Operations on Robben Island might possibly affect seal life on Komandorsky Islands, because the seals come from precisely the same direction; but he cannot think, that operations on the Pribylov Islands could at all affect the Russian Islands, and *vice versa*, because, he believes the seals to be of entirely distinct herds; those on the Asiatic side coming from the Japan coast, and those on the American side following along the North American coast.

Captain D. A. Grunberg, of the Russian Seal-skin Company's schooner "Leon."
Appendix No. 5.

249. Was unable to express any opinion, as to whether the two groups were similarly affected in seasons of scarcity or otherwise; but he believed that if any effect could be produced upon Komandorsky Islands, it would be from practices on Robben Island. Those on Pribylov could not affect the Komandorsky couplet.

Alfred Bissett, master of the sealing schooner "Annie E. Paint."
Appendix No. 14.

250. States that there is no difference in the herds of seals which frequent the two groups of islands. The majority taken off Copper Island are darker in colour than those on the American side, but there are very many which show no difference whatever in appearance. The stomachs contain about the same kind of food, principally squid.

251. (*i.*) The number of years during which a female seal continues to bear young, and the number of years a male seal renders efficient service on the rookeries.

Mr. Grebnitzky, Governor of Komandorsky Islands.

252. Expresses the opinion that female seals will average 10 births, thus bearing young for 10 years. He cannot say how many years a male seal will render efficient service. From his observations on the islands, he thinks they begin at five years of age, and continue about 15 years. He, however, could give no particular reason for this opinion.

Alexander Selivanoff, Russian officer at North Rookery.
Appendix No. 3.

253. Cannot say how long a female will bear, or a male render rookery service.

Alexey Badaeff, seal "driver," Behring Island.
Appendix No. 4.

254. Could not answer either question, but he has seen a very old bull serving a female.

Waldemar Paetz, agent for the Russian Seal-skin Company at Behring Island.
Appendix No. 2.

255. Could not answer either question.

Emile Klugé agent for the Seal-skin Company at Copper Island.

256. Expresses the opinion that a female seal will bear young in the third year of her age, but he can form no idea of how long she may continue to bear, nor how long a bull may serve on the rookery. In fact, he says, he does not see how any one can tell this.

Mr. Julius Lindguist, agent for Messrs. Welsh, Hall & Company, at Petropaulovski.

257. Judging from size and appearance, is of opinion a female will pup at three years of age. The natives told him that good sized skins are taken from seals six or seven years old, and as these are not large enough for rookery service, he judges they do not breed until at least eight years old. He is of opinion that, so long as the bulls are on the rookeries, they are of service to the females, and he has seen some old ones, probably fifteen or twenty years old.

Capt. Grunberg, of the Russian Seal-skin Company's schooner "Leon."

258. Could not answer either question.

259. (*j.*) The existence and habits of barren females and effete males:—

Mr. Grebnitzky, Governor of Komandorsky Islands.

260. States that in 1892, he noticed more barren cows on Copper Island than during the present year. He noticed no barren cows on either island this year.

261. In his report to the Russian Government, Mr. Grebnitzky says:—Generally speaking, there is a considerable number of barren females (old) which do not go on the rookeries for service by the bulls, but lay outside near the holluschickie. These barren females are easily frightened.

262. Mr. Grebnitzky further stated that this year between 200 and 300 old bulls came to the islands with the females, and then left without serving them.

Alexander Selivanoff, Russian official at North Rookery.
Appendix No. 3.

263. States that he has never noticed any adult females which were barren, nor any old bulls, which were not able for rookery service.

Alexey Badaeff, sealer "driver," Behring Island.
Appendix No. 4.

264. Does not know of the existence of barren females on the rookeries. There may or may not be. There are no bulls on the rookeries which do not serve the females.

Waldemar Paetz, agent for the Russian Seal-skin Company at Behring Island.
Appendix No. 2.

265. Knows that every year there are upon the rookeries a few old bulls, which are no longer able for rookery service. The number of this class is small, but they do occur each year.

Mr. Julius Lindguist, agent for Messrs. Welsh, Hall & Co., at Petropaulovski.

266. Knows of no barren cows or effete bulls. Never saw adult females with bachelors in any numbers. When odd ones have thus been seen by him, they have been in milk.

Chas. Leblanc, master of the sealing schooner "Sadie Turpel."
Appendix No. 6.

267. Got on the Japan coast 12 or 15 barren cows.

Captain Wm. Sheilds, master and hunter of the sealing schooner "Vera."
Appendix No. 7.

268. Took quite a number of barren females along the Japan coast, mixed in with the male seals, during the last week in June and first twelve days in July.

Wentworth E. Baker, master of the sealing schooner "Oscar & Hattie."
Appendix No. 8.

269. On the American coast, got a few barren cows, particularly off the Fair-weather Grounds.

Otto Bucholz, master of the sealing schooner "Casco."
Appendix No. 20.

270. Off Yesso Island, on the Japan coast, took several barren females. They were full grown, and there was no doubt that they were barren.

Melville Cutler, master of the sealing schooner "Agnes Macdonald."
Appendix No. 9.

271. Got along the Japan coast two barren cows.

W. H. Whitely, master of the sealing schooner "Mermaid."
Appendix No. 10.

272. Noticed on the Japan coast a large number of barren cows, many more than on the American coast. They were adults, with neither signs of pups nor milk, in any stage whatever.

William Cox, master of the sealing schooner "Sapphire."
Appendix No. 12.

273. In Behring Sea, he has got numbers of dry cows in July and August. These were barren cows.

Alfred Bissett, master of the sealing schooner "Annie E. Paint."
Appendix No. 14.

274. During July, off Copper Island, took some barren cows.

Thomas H. Brown, hunter, schooner "Agnes Macdonald."
Appendix No. 16.

275. Off the Japan coast, got quite a number of barren cows. He cannot just recall the number, but he observed several.

Abel Douglas, master of the sealing schooner "Arietas."
Appendix No. 19.

276. States that on the Japan coast he took quite a number of barren cows. This was in June, off Yesso Island.

Wm. D. Byers, master of the sealing schooner "Carlotta O. Cox."
Appendix No. 18.

277. States that among his catch on the Japan coast were some barren cows. As the season advanced, the crew looked for

unborn pups, and in opening the seals to obtain them, several barren females were observed.

278 (*k.*) The conditions of the rookeries, as to numbers of seals, during the year 1893, compared with previous years :—

Mr. Grebnitzky, Governor of Komandorsky Islands

279. Says that there is a decrease of three-tenths compared with last year, and three-fifths compared with the year before. He arrives at these figures from records kept at the rookeries, and from his own observations, when he visits the rookeries. This year there were more pups and more females on Behring Island than last year.

280. There were more bulls on Copper Island than last year, but fewer on Behring Island. He states that on the latter island, only four yearlings were observed, but on Copper Island, there was an increased number of yearlings. In 1892, he noticed more barren cows on Copper Island than this year. None on either island this year.

281. In his report to the Russian Government, this functionary says, that pelagic sealing caused a decrease of seals on the breeding rookeries, especially of females, only about one-half of the females being noticed on the rookeries since 1888, as compared with the number for some years prior to that date. And in his telegram to the Minister of Domains, he states that there are plenty of seals in the sea and on the coast of Kamtschatka, but fewer seals this year on the rookeries. He reports a slight decrease of females on Copper Island this year, but there are plenty of bulls, and he adds, the skins taken are large.

Commander Burr, of H.M.S. "Porpoise."

282. Expressed the opinion that there were fewer seals on the rookeries than there were two years ago, and that they were smaller, both male and female.

Alexander Selivanoff, Russian official at North Rookery.
Appendix No. 3.

283. Says from personal experience there is an increase compared with last year. This increase was noticeable in all classes of seals, but particularly in the number of females and pups; while there was also an increased number of bulls. There were over 1,000 bulls on the rookery this year.

284. During the year 1892, the rookeries were in better condition than in 1891, there being more seals generally, though he could not say of what particular class. On the whole, he believes, the rookeries to be in a better condition, than for the past three years.

Alexey Badaeff, seal "driver," Behring Island.
Appendix No. 4.

285. There were more seals on North Rookery this year than last. The increase is general, including all classes of seals. In 1891 there were not so many seals as in 1892, and this year, 1893, there were more seals than in 1892.

Waldemar Paetz, agent of the Russian Seal-skin Company, at Behring Island. Appendix No. 2.

286. States that there were last year, and this year more seals on North Rookery than there were during 1891, the first year he spent on the island.

287. There is a considerable increase in the number of female seals, and also in the number of pups this year. The first year he was on the island, there were very few bulls on the rookeries; but last year the number of bulls increased, and this year it increased again over the number of last year. There was very little difference between the number of bachelors this year and last, but there was a considerable increase in the number of females. He considers the rookery to be in better condition this year, as regards numbers of seals, than during 1891 and 1892.

Mr. Emile Klugé, agent of the Russian Seal-skin Company at Copper Island.

288. Believes that there are fewer female seals on the rookeries of Copper Island than last year, but he could not say to what extent they had decreased. He also considered that, on the whole, there were fewer seals on the rookeries than during 1891 and 1892.

Captain D. A. Grunberg, of the Russian Seal-skin Company's schooner "Leon." Appendix No. 5.

289. Considers there is an appreciable decrease in the number of seals on Robben Island, as compared with 1885 and 1886. There were no skins taken on the island last year by the company, because it was not considered profitable to send sealers there. This year, however, they took 1,532 skins. In 1891 the take was less, but he could not say the exact number.*

*The figures were 540.

Mr. Julius Lindquist, agent, Messrs. Welsh, Hall & Co., at Petropaulovski.

290. Thinks there were more seals on the island in 1890 than in 1891; but he heard from the employees of the Russian Seal-skin Company, that there were more seals on the islands this year than last.

291. (*l*.) The presence of Fish in the vicinity of the Russian Seal Islands.
Captain Fawkes, R.N.

292. Capt. Fawkes, of H.M.S. "Mercury," says, of the vicinity of Robben Island, that while he caught very few fish on the cruising grounds, they were plentiful within a few miles of the shore.

Commander Burr, R.N.

293. Commander Burr, of H.M.S. "Porpoise," testified to the great numbers of fish to be caught close to the shore.

Alexey Badaeff. Appendix No. 4.

294 Alexey Badaeff, a native of Behring Island, testifies that the seals can find all the food they want within five miles from the islands.

Waldemar Paetz. Appendix No. 2.

295. Waldemar Paetz, Company's agent at Nikolski, says: The seals can get food near the islands.

Capt. Grunberg. Appendix No. 5.

296. Capt. D. A. Grunberg of the Russian Seal-skin Company's schooner, "Leon" believes the seals can get food without going far from shore, as while nursing they do not go beyond one or two miles off.

Capt. Chmeilevsky, Imperial Russian Navy.

297. Capt. Chmeilevsky reports plenty of cod near all the villages.

Personal observations of R. N. Venning.

298. My own experience on board the "Kotik" was, that wherever we anchored off Copper Island, never further than about a mile from shore, the quantity of cod to be taken was only limited by the time devoted to it. I caught these fish, measuring from 20 inches to 3 feet in length, actual measurement, until it became irksome. Fishing with 40 or 50 feet of line, the line was never allowed to straighten before the bait was taken, and the hooked fish was invariably followed to the surface of the water by from six to a dozen others.

299. A careful examination of the external condition of these fish, enables me to say that I could not observe any striking difference between them and the ordinary Atlantic cod. They were, in size, very much the same as the shore cod of the eastern coast of the United States and Canada, though in colour they bore a greater resemblance to the deeper water or "bank cod," bearing much the same marks, and possessing no highly coloured appearance, such as I had noticed in the shore cod of Massachusetts and Maine this summer. However, more than half of them were afflicted with skin sores or fungi, and appeared to be infested with parasites. I was told by the crew of the "Kotik" that this is nearly always the case with the fish taken close to shore, but a few ship's lengths further out, much finer and better conditioned fish were to be found.

300. With regard to the annual migrations of salmon to the islands, I collected the following information:—

Mr. Grebnitzky, Governor of Komandorsky Islands.
Appendiz No. 1.

301. Mr. Grebnitzky, in his report to the Russian Government, states that the salmon arrive in the vicinity of Behring Island about the end of June, and are observed arriving until the end of August. The seals, he says, go out 60 miles to meet them, and being fond of salmon, there have been times when they went up the rivers for them.

Mr. Lindguist, mate of the Company's steamer "Kotik."

302. Mr. Lindguist, mate of steamer "Kotik," described the arrival of the salmon as follows:—

1. The King salmon (a very large fish), the end of May and beginning of June, running about four weeks.
2. The Hooked-mouth fish, the middle of June.
3. The Humpbacked salmon, beginning 1st July.
4. The Red salmon, come gradually and run until 1st August.
5. The Silver salmon, last of July and 1st August.

They all go up the rivers, with the exception of the King salmon.

Silver salmon can be found in most creeks on the Kamtschatka coast up to December, and he has heard of stragglers until February.

Gavril Podprugin, Russian fisherman, near Petropaulovski.

303. The King salmon appear about the 1st June. Some of them will reach 40 lbs. weight.

304. The second run is composed of red, humpbacked and hook-nosed salmon. The red come slightly earlier, but generally they are mixed. These appear about the 12th June.

305. The Silver salmon are the last to arrive, coming about the 12th July, but are then scarce. By the 15th September they are more plentiful, and in best condition.

306. All classes of salmon are taken until about the 15th October, and then the stormy weather prevents fishing. On the large Kamtschatkan rivers, salmon are caught until Christmas.

307. The opinion expressed by Mr. Podprugin was that the fish died, and never went to sea again after spawning.

308. He says: The King salmon spawn in July, the Red salmon about the first week in September, and the Silver salmon about 1st November.

Chief native at Sarannoie.

309. The Chief of the native fishing village of Sarannoie, Behring Island, which village is composed of a few huts situated at the mouth of a stream of that name, flowing from a lake of considerable size, said: The hook-mouth and red salmon, arrive in the month of May, and leave the lake in January. The silver salmon arrive in July and leave in November.

Personal observations of R. N. Venning.

310. With Dr. Slunin, I visited their fishery, which consisted of two rudely constructed dams entirely across the stream, one about 50 or 60 feet above the other, within a short distance of the mouth of the stream. These dams were loosely built, by driving large stakes slanting down stream, and backing them up with large and small boulders. Although not sufficient to dam the flow of the water, they seemed to be quite effective in impounding the fish, and immense quantities of red, hump-backed and silver salmon, were congregated below the first dam, and between the two. The mode of capture then adopted, was a gaff and dip net, with the former of which the natives dexterously secured some specimens of each kind.

The red salmon varied in colour externally from a deep red to a dull slaty colour with a reddish tinge; the highly coloured ones predominating. The hump-backed salmon, were of a dull slaty colour, with whitish bellies and a small golden eyes.

311. The silver salmon, were beautifully formed fish, of a bright silvery colour, and represent a particularly symmetrical

specimen of the Atlantic salmon, though they are a thicker fish for their length, and much brighter in colour than the ordinary Atlantic salmon of from 8 to 12 lbs. weight.

312. The red male salmon, had abnormally hooked noses, in this respect surpassing the hump-backed salmon, in which this peculiarity was also particularly marked. The silver salmon, also showed a slight tendency that way, but not nearly so marked as in the other specimens.

313. Dr. Slunin, in my presence, examined the stomachs of six of these salmon: three females,—one red, one hump-backed and one silver salmon, three males; one of each kind. All of these fish contained ova and milt, in a well developed and advanced stage. This was on the morning of the 28th August. With the exception of one male, the stomachs of these fish contained no trace whatever of food, but all contained a few parasites. In the stomach of this one male, was found a small fish, about three inches in length.

314. Up to that date, there had been taken at this village 22,000 salmon. The choice portions were selected for food and hung up to dry, but the bulk of these fish are dried and used during the winter as food for dogs.

315. When returning from North Rookery to Nikolski, I passed a small shallow pool, not greater in extent than 30 x 15 feet, apparently the termination of a small blind creek. In this pool were hundreds of salmon, principally red, some were dead, the others in a dying condition.

316 Evidently these fish could get no further, and their instinct to ascend, preventing them from returning, they died in shallow water, which in same places was scarcely sufficient to cover them.

317. While at Petropaulovski, during the month of September, I observed some local fishermen catching salmon. Directly from the shore of the inner harbour, into which no river or fresh water of any kind flowed, with nets of but a few fathoms in length, they made good catches of the "silver" salmon, taking as many as 12 and 15 at a haul averaging probably 12 or 15 pounds in weight. Their method was to set the net—certainly not more than 30 to 50 feet long – then standing on high ground, depend upon the clearness of the water, to see the fish coming within the scope of the net. They would then haul it quietly and carefully on the beach, similar to a seine, with the above results.

318. The crew of the "Archer," on several occasions, seined for fish in the harbour of Petropaulovski, taking large quantities at each haul. The fish thus taken were principally small pollack, or a small fish of that family, very much resembling young pollack; a large number of very large smelt, some small herring, and a few very handsome trout, the spots being of a silvery hue on a slightly darker ground.

319. There were also large numbers of a small fish of the sculpin kind, which they called toadfish.

320. Gavril Podprugin, the fisherman previously quoted in connection with the salmon, told me that the spring herring strike in about the 12th May, spawn and leave in about a month. The fall run is composed of a smaller run of fish. They arrive about the 1st September, and stay until the ice makes, in November.

321. When leaving Petropaulovski, on the 25th September, on our return to Yokohama, in Avatcha Bay, the "Archer" passed close alongside of myriads of gulls and immense numbers of hair-seals, evidently moving along with a school of fish.

The pelagic sealers:—

Testimony of Pelagic sealers. See Appendices.

322. Capt. Charles Leblanc, of the schooner "Sadie Turpel"; Capt. Wm. Shields, of the "Vera"; Capt. Melville Cutler, of the "Agnes Macdonald"; Capt. W. H. Whitely, of the "Mermaid"; Capt. J. B. Brown, of the "Walter P. Hall"; Capt. Alfred Bissett, of the "Annie E. Paint"; Capt. Wm. O'Leary, of the "Geneva"; Capt. Abel Douglas, of the "Arietas"; Capt. Wm. Byers, of the "Carlotta E. Cox"; and Thomas H. Brown, a hunter on the "Agnes Macdonald," all testify to the abundance of surface fish—squid, salmon and other fish—around the islands, the distances given varying from 30 to 200 miles off shore.

323. (*m.*) The efficiency or otherwise of the protective zones provided for by the agreement between Great Britain and Russia for the year 1893.

Captain Domojiroff, Imperial Russian cruiser "Zabiaka."

324. Could not say whether or not the arrangement had afforded protection to the seals. There were very few vessels within the limit this year. Seals were taken far out beyond the protective zone, and, of course, the larger the zone the better. Captain Domojiroff, saw very few seals from 20 to 30 miles from shore, but as he approached the shore the number of seals greatly increased.

Captain Chmeilevsky, Imperial Russian cruiser "Yakout."

325. Stated that very few schooners were seen within the protective zone this year. Last year, when no limit had been agreed to, the number was very large. During June, and in the beginning of July, he saw plenty seals about the 30-mile limit, but since that date very few were seen, perhaps only 5 or 6 each day, 30 miles from shore. The nearer the shore he approached, the more seals were to be found. He believes the 30 and 10-mile zones around the islands and coasts, respectively, to be a good arrangement. It protects the seals after they have reached the rookeries. He would prefer a larger limit, which would prevent the interception of the seals, on their migrations to the islands, but at the same time

the 30-mile limit was good, for the breeding seals. He also said that the larger the limit was, the greater would be the difficulty besetting its proper patrol, involving the presence of many vessels and great expense. In his opinion, it would be better for the seals if pelagic sealing were entirely prohibited, but on the whole, the agreement was good, as it had had the effect of very much reducing the number of schooners in the vicinity of the Islands.

Sub Lieutenant Michailow Raslowler. Imperial Russian cruiser "Yakout."

326. Expressed the opinion that the 30 mile zone around the Island was not large enough; because the schooners took seals outside of that limit. He could not say that these seals were females; and he does not think that all the seals at sea are females. He sees most of the sealers they speak, because he is more conversant with the English language than the other officers, and his opinions of pelagic sealing are all based upon what he sees and hears on board the schooners.

327. If the Russian Government had the same authority within the 30 mile zone, that they have in their territorial limit then, he is of opinion, the 30 mile zone would prove ample protection to the seals, and the effect would be perfect, for the schooners then would never dare to venture within the zone, if the weather was clear.

Lieutenant Girther, Imperial Russian cruiser "Yakout."

328. Considered that if the Russian Government were vested with territorial jurisdiction within the 30 mile limit, a solution of the difficulty would result.

Captain Wilmot H. Fawkes, of H.M.S. "Mercury."

329. Had been cruising around Robben Island, Okhotsk Sea, in connection with the agreement with the Russian Government.

330. Captain Fawkes had seen very few seals in the vicinity of that Island. Those he did see were well within the 30 mile radius, being within a few miles of the shore. He states that during his stay in the vicinity of Robben Island, he had seen neither sealing vessels, nor Russian gunboats.

Commander Burr, of H.M.S. "Porpoise."

331. Saw very few seals while cruising around the Komandorsky Islands, near the protective limit, but the nearer shore he approached the greater number of seals were to be observed.

Mr. Grebnitzky, Governor of Komandorsky Islands.
Appendix No. 1.

332. Did not consider the 30 mile limit large enough, because, as he reports to the Minister of Domains, the sealing schooners keep in the track of the seals from 40 to 90 miles off the south end of Copper Island, and prevent them from going further out or coming in.

Alexander Selivanoff, Russian Official at North Rookery.
Appendix No. 3.

333. States that the 30 mile zone around the Islands is a sufficient protection to the breeding seals, after they have got to the rookeries, but early in the year, during

their migration to the islands, the presence of the sealing schooners interferes with their passage thereto.

Alexey Badaeff, Seal "driver," Behring Island.
Appendix No. 4.

334. Is of opinion that the limit is not sufficient, because the holluschickie go more than 30 miles from land, though not necessarily for food, as they could get that inside.

Waldemar Paetz, Agent for Russian Seal-skin Company, Behring Island.
Appendix No. 2.

335. Is of opinion that the agreement providing a 30-mile zone around the Islands, has afforded ample protection to the breeding females especially, which do not go far from shore, while nursing their young. He also expresses the opinion that none of the seals go beyond the 30-mile zone, if indeed that far.

Emile Klugé, Agent for Russian Seal-skin Company, Copper Island.

336. Is of opinion that the protective zone has had but little effect. He bases this opinion entirely upon observation made when sealers are seized, and the fact that they catch seals 60 miles from land.

Capt. D. A. Grunberg, of Russian Seal-skin Company's schooner "Leon."
Appendix No. 5.

337. Believes that the arrangement has afforded a moral protection to the seals. He neither heard of, nor saw, any pelagic sealers in the vicinity of Robben Island, within the prohibitive area, while he was there; but they generally get there about the latter part of August and during the month of September.

POINTS INCIDENTALLY OF INTEREST IN CONNECTION WITH THE SEALING INDUSTRY.

338. As my instructions directed that I should neglect no opportunity of obtaining trustworthy information on any subject, I have under this heading collated some observations, touching the sealing industry generally. These matters have more or less bearing upon the subject, although not immediately specified.

They are:

1. Distribution of seals at sea.
2. Numbers, conditions and kinds of seals on the American coast.
3. Contents of the stomachs of seals.
4. Seals that have come from the rookeries can be determined.
5. Pups will swim by instinct.
6. Sexes can be distinguished at sea.
7. Copulation in the water.

339. To a certain extent the subdivisions "distribution of seals at sea," and "number, conditions and kinds of seals on the American coast," can scarcely be dissociated.

340. It is a remarkable fact, that at times when the seals should, according to their known habits, be congregated upon either or both of the breeding grounds, on the American and Asiatic sides of the North Pacific Ocean, they are found in large numbers, at such great distances therefrom, and distributed over such vast areas. And this, according to the testimony, at the time the authorities have stated is the shedding period, during which they remain upon the islands instead of migrating to sea.

341. To the evidence collected on this point I must add my own experience, during my passage from San Francisco to Yokohama. On the afternoon of the 28th July, the ship's position at noon being latitude 47° 56′ N. longitude 158° 07′ W., I saw one seal within 200 or 300 yards of the ship. The third officer of the steamer informed me that during the morning watch, on the 29th, 30th, and 31st July and 2nd August (between which latter dates we crossed the 180° meridian), he had seen large bodies of fur seals ahead of the ship. The vessel's positions at noon on these dates respectively were: Latitude 48° 06′ N.; longitude 165° 21′ W.; latitude 48° 06′

N., longitude 172° 06′ W.; latitude 47° 49′ N.; longitude 177° 20′ W., and latitude 47° 11′ N., longitude 176° 46′ E.

342. The distances run were 291, 271, 211 and 242 knots respectively. He made the remark, that he did not see why the sealers wanted to go into Behring Sea, when they could get all the seals they desired outside.

343. The evidence is practically unanimous, that a large increase in the number of male seals is noticeable during the past two years on the American coast. This is attributed to the cessation of killing operations on the Pribylov Islands, under the *modus vivendi*, and it is said that the female herd has not been met as formerly along this coast; the opinion being ventured that the increasing males have, by worrying the pregnant females, driven them to off shore routes.

344 It may be added that while in Victoria I was informed by Mr. Walter Borns, a dealer in furs, that a class of seal skins are obtained from the Indians, which are taken in the channels along the coast infinitely superior to the ordinary skin. He said that he could immediately detect the difference and value The fur is finer and choicer in every respect. He was entirely at a loss to account for the fact, and in the absence of a better reason, he was inclined to the belief that perhaps the nature and quality of the food found in these channels might afford some explanation.

DISTRIBUTION OF SEALS AT SEA.

Chas. Leblanc, master of the sealing schooner "Sadie Turpel."
Appendix No. 6.

345. Reports that on his way from Komandorsky Islands to Victoria, during the month of September, he got two male seals about 200 miles south of the Aleutian Islands.

W. H. Whitely, master of the sealing schooner "Mermaid."
Appendix No. 10.

346. About the 25th June noticed hundreds of seals entering the first pass into Okhotsk sea. The schooner "Beatrice," of Vancouver, and the "Rattler," of San Francisco, went into the sea, but could not find the seals.

347. This year in the open ocean, on the 8th day of March, he caught one female seal, with pup. His position was latitude 35° 00′ N., longitude 170° 00′ E., about 3,000 miles from the Japan coast and 1,200 miles south of the Komandorsky Islands. The second mate of the steamer "City of Pekin" told him that on the winter route of that vessel, in the vicinity of the above position, they encountered large numbers of seals.

J. B. Brown, master of the sealing schooner "Walter P. Hall."
Appendix No. 11.

348. On the 20th September, in latitude 51° 10′ N., longitude 175° 55′ E., due south of Attou Island 100 miles, took one female seal.

349. Capt. Larrabee, of a sailing ship (cannot recall name), told him that on a voyage from Hakodate to New York, on 14th September, 1892, in latitude 43° 30′ N., longitude 162° 30′ E., he passed a large number of seals 720 miles off shore. The year before, 1891, about 70 or 80 miles northward of the above positions, between the 12th and 15th August, he sailed through large bodies of seals.

William Cox, master of the sealing schooner "Sapphire."
Appendix No. 12.

350. Annually, for the last four years, vessels have reported that during July and August, large bodies of seals have been seen 600 miles south of Copper Island. Capt. Townsend, of the barque "George," and Capt. Fullmore, of the sailing ship "Fingal," as well as Capt. Howard McKenzie, of the "Ernscliffe," reported this,

the former four years ago, and the latter two a year ago. This year he heard similar reports.

351. Capt. Turner, of the "Albatross," who had previously been captain of a mail steamer, told him he had seen numbers of seals in the same positions. The captains of the sailing ships above named said they had been three days sailing through the seals under a light breeze.

352. Passing along to the southward of the Aleutian chain this year, about the 1st July, he saw seals about 120 miles south of Ounimak Pass, and ranging along the chain, from that distance to 80 miles south of Agattu Island. On the 8th and 9th July, between Rat Island and Agattu, 80 miles seaward, the seals were quite as plentiful as he ever saw them in Behring sea. One day at this place, he got two with young unborn, and one with milk. He got in all 20 seals, the wind was high and the water rough.

353. He believes there are many seals which never go on the breeding islands, because they can be seen off the west end of Vancouver Island all the year round. He got one seal about 400 miles W.S.W. of Cape Flattery in September, on his way home this year.

Geo. Heater, master of the sealing schooner "Ainoko."
Appendix No. 13.

354. About 100 miles off Middleton Island he saw quite a large number of cows.

355. The Indians got cow seals off Hesquiat, on the coast of Vancouver Island, during the last week in May of the present year.

Alfred Bissett master of the sealing schooner "Annie E. Paint."
Appendix No. 14.

356. Says: On his way to Copper Island, about 100 miles S. ¼ E. (true) off Amchitka Island, took eight seals on 4th July, while crossing the 180 meridian. Four were females heavy with pup.

357. He was told by the mate of the schr. "Annie E. Paint" that an occasional south sea seal was shot off Copper Island. The fur is better and more golden in colour.

Wm. O'Leary master of the sealing schooner "Geneva."
Appendix No. 15.

358. Is of the opinion that there is a large body of seals, which never go upon the islands, chiefly young males, which are not allowed upon the rookeries by the bulls, with a sprinkling of young females, which have not begun to breed.

John McLeod master of the sealing schooner "Pioneer."
Appendix No. 21.

359. In July, 1892, between 70 and 80 miles to the southward of Copper Island, took three or four big bulls.

R. N. Crowell master of the sealing schooner "Brenda" 1892.
Appendix No. 17.

360. On the 28th August, 1892, went to the northern part of the Gulf of Kamtschatka for water, where he saw large numbers of fur seals, including sleeping cows.

361. On the 22nd February, 1892, latitude 38° 00′ N., longitude 141° 00′ W., he

passed through a large body of seals off the southern California coast, about 950 miles off. He was bound from North Sydney, C.B., to Victoria, B.C.

Wm. D. Byers master of the sealing schooner "Carlotta G. Cox." Appendix No. 18.

362. On the 29th August, in latitude 56° 31′ N., longitude 177° 35′ E., got one male seal about 150 miles south of Amchitka Island, Aleutian Chain. He believes that yearling males remain in the ocean, and do not visit the islands, because they are found south of the Aleutian and Komandorsky Islands.

NUMBERS, CONDITION AND KINDS OF SEALS ON AMERICAN COAST.

Wentworth E. Baker master of the sealing schooner "Oscar & Hattie." Appendix No. 8.

363. Went to Komandorsky Islands *viâ* the American coast. Between Cape Flattery and Kodiak took 1,162 seals, from 20 to 100 miles off shore, between 12th March and 5th June. The catch was almost entirely composed of males. He does not believe he got 300 female seals. He missed the herd of females. Of the females taken, very few were in pup, the rest being virgin cows, mixed with males. He also got a few barren cows, off Fairweather grounds.

W. H. Whitely master of the sealing schooner "Mermaid." Appendix No. 10.

364. Saw plenty of seals off Cape Flattery on the 29th January.

Wm. Cox master of the sealing schooner "Sapphire." Appendix No. 12.

365. Believes that the cessation of the killing operations by the lessees on the Pribylov Islands, under the *modus vivendi* has greatly increased the number of bachelors, and that these bachelors have, by worrying the females with pup, driven them to some off-shore route. In no other way can he account for the absence of females on the coast this year, 90 per cent of his catch there being males, and the percentage of males has been getting large since 1891.

366. Captain Tanner also expressed this opinion to him.

367. During the month of May, he saw on the Fairweather Grounds—extending from Cape Fairweather to Middleton Island—about 60 miles off shore, three females with pups swimming alongside, the pups being apparently about two or three weeks old.

368. He believes there are many seals which never go on the breeding islands, because they can be seen off the west end of Vancouver Island all the year round.

369. The seals seem to be getting more plentiful on the American coast each year. There were more this year than when he first began sealing.

370. The last year he was in Behring Sea (1891), the seals were more plentiful than he ever heard of them being.

Geo. Heater master of the sealing schooner "Ainoko." Appendix No. 13.

371. This year on the Canadian and American coasts, he saw more seals than any year since he began sealing, and he

believes if he had not gone to the waters around Komandorsky Island he would have secured a larger number of skins.

372. Fully two-thirds of his total catch were males. The females appear to be changing their route and keeping further off shore.

373. Last year (1892) he also noticed more males than usual on the American side of the line of demarcation.

Alfred Bissett master of the sealing schooner "Annie E. Paint." Appendix No. 14.

374. Off Cape Foulweather, bearing east about 25 miles, took about 100 seals during February. Arrived off Sitka 4th April; took about 30 or 40 seals on the way up. During April and May, sealed off Cross Sound and Mount St. Elias, taking about 600 seals Arrived at Sand Point 16th June, where he refitted and sailed for the Russian side. His whole catch of 740 seals along the coast was almost entirely of males, including 30 old bulls. The female herd passed them on the outside. So far as he has heard, the other sealers have had the same experience along the coast.

John McLeod master of the sealing schooner "Pioneer." Appendix No. 21.

375. Took this year 1,050 seal-skins, between Queen Charlotte Island and the Fairweather Grounds. One hundred and twenty (120) miles off Cape Fairweather, during latter end of April this year, latitude 57° 58′ N., longitude 139° 46′ W., he took 10 or 12 very large bulls. He saw more bulls and males, on the Fairweather Grounds this year than he ever saw before. The females were much scarcer than usual. He believes they were driven off their usual routes, by being worried by the increasing number of young males. Ninety per cent of his catch were males. Off Agattu Island, at the extreme end of the Aleutian Chain, between 13th and 29th July, he saw seals 75 miles south-west.

R. N. Crowell master of the sealing schooner "Brenda 1892." Appendix No. 17.

376 Says that off Cape St. Elias, and between that Cape and Middleton Island, about 30 miles off shore, young cows and young male seals are found every year as late as the end of August.

377. He is of opinion that somewhere on the coast, between Queen Charlotte Island and Unimak Pass, there must be a seal rookery, because of the fact that female seals are taken there so heavy with pup, that it would be impossible for them to reach any known rookery, without dropping their pups on the way.

378. This year on the British Columbian and Alaskan coasts, as far up as Kodiak, got in all 241 seals. There were not over 12 females in pup, the others being young females and males. He got one big breeding bull off Cape St. Elias, about 60 miles off shore.

CONTENTS OF THE STOMACHS OF SEALS.

Chs. Leblanc, master of the sealing schooner "Sadie Turpel." Appendix No. 6.

379. Found that the stomachs of the seals killed both along the Japan coast, and in the vicinity of Komandorsky Islands, contained considerable squid and small fish..

Wm. Sheilds, master of the sealing schooner "Vera." Appendix No. 7.

380. Of the early catch along the Japan coast, both males and females, the stomachs were comparatively empty, but later on they contained considerable fish food. The stomachs of the seals taken in the vicinity of Komandorsky Islands, contained very little food,

Wentworth E. Baker, master of the sealing schooner "Oscar & Hattie." Appendix No. 8.

381. The seals taken north of Komandorsky Islands, appeared to feed more upon salmon and small fish than upon squid.

Melville Cutler, master of the sealing schooner "Agnes Macdonald." Appendix No. 9.

382. Off Copper Island this year, between 25th July and 5th September, examined the stomachs of several seals, both male and female, to observe what they fed upon. He found in the stomachs of both, the remains of squid and small fish resembling smelt or capelin. In previous years he observed the same thing on the American side.

W. H. Whitely, master of the sealing schooner "Mermaid." Appendix No. 10.

383. From the middle to the end of August, in the vicinity of Komandorsky Islands, male and female seals are to be met in very poor and lean condition, having the appearance of being starved. When opened the stomachs are entirely empty, although squid and salmon are abundant. Others are fat and full of food.

J. B. Brown, master of the sealing schooner "Walter P. Hall." Appendix No. 11.

384. The seals taken along the Japan coast were rather lank, the stomachs showing very little traces of food, but what there was was principally small fish and squid. Very few of the seals taken off the Komandorsky Islands were fat; most of them being poor and thin.

Wm. Cox, master of the sealing schooner "Sapphire." Appendix No. 12.

385. This year the seals he took on the Russian side, were nearly all full of squid; but on the American side, the stomachs of those opened were empty, except a few pebbles in one and sealing shot in another.

Alfred Bissett, master of the sealing schooner "Annie E. Paint." Appendix No. 14.

386. Says that the stomachs of the seals around Komandorsky and Pribylov Islands contain about the same kind of food, principally squid.

Abel Douglas, master of the sealing schooner "Arietas." Appendix No. 19.

387. Says that in the stomachs of both male and female seals, he has frequently found a variety of food-squid, small fish similar to herring, and salmon.

SEALS THAT HAVE COME FROM THE ROOKERIES CAN BE DETERMINED.

Wm. Sheilds, master of the sealing schooner "Vera." Appendix No. 7.

388. Can tell from the discolouration of the bellies, and the condition of the flippers, whether seals have been for any length of time on land.

Otto Bucholz, master of the sealing schooner "Casco."
Appendix No. 20.

389. Seals that have been on the Islands are discoloured in the bellies, and contact with the rocks and beaches renders their flippers rough and worn.

Melville Cutler, master of the sealing schooner "Agnes Macdonald."
Appendix No. 9.

390. Can determine if seals have been on the rookeries or hauling grounds. Their flippers are worn and their bellies discoloured. Got young males off Copper Island this year, which had no appearance of having been on the island.

W. H. Whitley, master of the sealing schooner "Mermaid."
Appendix No. 10.

391. The flippers of seals which have come from the islands are worn, and the seals can thus be distinguished.

Wm. Cox, master of the sealing schooner "Sapphire."
Appendix No 12.

392. Has once in a while noticed by the worn flippers, that certain seals had been on land, but he would not consider this a certain proof that they had or had not been on the rookeries.

George Heater, master of the sealing schooner "Ainoko."
Appendix No. 13.

393. Can easily tell whether seals have come from the breeding or hauling grounds. The long hair on the bellies is worn and discoloured, and the flippers are worn and ragged.

Wm. O'Leary, master of the sealing schooner "Geneva."
Appendix No. 15.

394. If seals have been on the hauling grounds or rookeries, their bellies are discoloured and their flippers worn.

Wm. D. Byers, master of the sealing schooner "Carlotta G. Cox."
Appendix No. 18.

395. Can tell from the appearance of a seal whether it has come from the rookeries or hauling grounds. The bellies are discoloured.

PUPS WILL SWIM BY INSTINCT.

Wm. Cox, master of the sealing schooner "Sapphire."
Appendix No. 12.

396. Has seen pups cut from the mothers, swim long distances when put in the water, and they can be kept alive on the schooner for weeks.

George Heater, master of the sealing schooner "Ainoko."
Appendix No. 13.

397. Has seen pups cut from the mothers follow the schooner for an hour.

John McLeod, master of the sealing schooner "Pioneer."
Appendix No. 21.

398. An unborn pup taken from the mother will live.

SEXES CAN BE DISTINGUISHED AT SEA.

Charles Leblanc, master of the sealing schooner "Sadie Turpel."
Appendix No. 6.

399. Says he can tell a female from a male seal in the water, they being finer in the head and neck.

Otto Bucholz, master of the sealing schooner "Casco."
Appendix No. 20.

400. The sexes can be distinguished in the water. The head of a female is finer, the throat lighter in colour, and the neck and throat more delicate and graceful. A hunter meeting a male and female together, will kill the female first, as the male is more apt to remain with it.

George Heater, master of the sealing schooner "Ainoko."
Appendix No. 13.

401. Says he can distinguish a cow from a male in the water quite readily; the head is finer and the neck is more graceful.

Wm. D. Byers, master of the sealing schooner "Carlotta G. Cox." Appendix No. 18.

402. Can distinguish cows from males in the water. They are not so heavy in the head, and their throats are thinner and lighter in colour. They are also more alert and more difficult of approach, even if asleep.

COPULATION IN THE WATER.

Wm. Cox, master of the sealing schooner "Sapphire." Appendix No. 12.

403. States that he has seen several instances of copulation at sea, and that there can be no doubt that it occurs.

Geo. Heater, master of the sealing schooner "Ainoko." Appendix No. 13.

404. Has never seen fur seals copulate in the water, but he has observed hair seals do so.

Wm. O'Leary, master of the sealing schooner "Geneva." Appendix No. 15.

405. Has seen seals mating in the water in Behring Sea.

John McLeod, master of the sealing schooner "Pioneer." Appendix No. 21.

406. Says his attention was called this season to seals copulating at sea. He has no doubt as to the fact.

Commander R. W. Scott Rogers, of H.M.S. "Archer."

407. Informed me that while cruising in the vicinity of Komandorsky Islands he saw on two occasions, 28th August and 1st September, seals evidently in the act of copulation. He carefully observed them, and could account for their actions in no other manner

FISHING BANKS.

R. N. Crowell, master of the sealing schooner "Brenda," 1892. Appendix No. 17.

408. Reports that on the 18th day of September, 1892, when on his way to Victoria from the Russian side, his position at noon being 49° 45′ north latitude and 144° 30′ west longitude, he got on a bank at 5 o'clock in the morning. He ran off it between 7 and 8 o'clock in the evening. His position at noon, brought him about in the middle of the bank, east and west. His vessel was making 10 miles per hour, and he is of opinion that, running east and west, this bank must be quite as large as the grand bank of Newfoundland. It was getting late in the season, and he was on a good course, therefore, he did not stop to try the bank When his observation was taken at noon. Middleton Island bore N.½ E. true, distant 600 miles.

REVIEW OF EVIDENCE AND CONCLUSIONS.

409. Under heading 2, sections (*a*) and (*c*) naturally come together for consideration. The points involved are :

1. Whether female seals go far from the islands when suckling their young.
2. How long pups are necessarily suckled before weaning.
3. The earliest date at which mothers may resort to sea after giving birth to their young.
4. Whether they go for food or for what purpose.
5. Whether they are killed by the pelagic sealers.

410. 1. Notwithstanding the fact that Mr. Grebnitzky, in his report to the Russian Government, states that migrations of 200 or 300 miles for purposes of exercise or seeking food, are mere promenades for seals of all kinds except "Bulls," his answers to all my questions tending to this point, were unequivocally that at that particular period, female seals do not go far from the breeding islands.

411. With the exception of Mr. Emile Klugé, the Company's agent at Copper Island, all witnesses agreed, that the nursing females do not go to any considerable distance to sea. Some stating that they suckled their young three or four times a day, during the early stages, and that they would have to return to them every few hours.

412. Mr. Klugé expressed the opinion that they go 50 or 60 miles off shore, and he thinks the "bachelors" probably go as far to sea as the females, but he remarked "who can answer"? His statement, which cannot be supported by any observation of his own at sea, must, therefore, be regarded as purely conjectural.

413. It would not, however, appear that any question existed on this point, at least in the minds of the Russian authorities, for in their report on the seizures of 1892, the Russian Commission, * stated it to be a fact that "during the period of suckling in "July and August, the females cannot go to any distance from the shore;" and Mr. Chichkine, in his letter to Her Majesty's Ambassador 29th May (10th June) 1893, stated that the skins taken by the seized vessels were those of females, "who "must therefore have been killed close to the shore;" also that the skins on board the schooner "Ariel" had probably been taken from nursing females, "and belonged "to seals caught in Russian Territorial waters." (Correspondence, Russia. No. 3 1893, page 5).

414. The conclusion that female seals do not go far from the islands whilst suckling their young, is therefore the only one justifiable.

415. 2. On this point the statements are conflicting, and are referred to at length in the remarks below. The evidence, however, points to the conclusion that females suckle their young about six weeks.

416. 3. On this point it was impossible to procure any information, nor would any one venture an opinion on the subject: although, in my opinion, it ought not be any more difficult to establish, than any of the other points upon which ready answers were given.

417. 4. The conclusions to be drawn from the evidence upon this point are: that the seals while nursing, leave the rookeries for food, to avoid the heat when the sun is strong, and to avoid the rain during wet weather. In none of these cases however, do they wander far from the rookeries. In the two latter instances, their object is attained immediately they enter the water, and in the former instance, they can obtain abundance of food in the immediate vicinity of the islands. Hence, the seals are not compelled to make long excursions for food, at times when their presence at the islands is necessary.

418. 5. The only evidence that the nursing females are killed by pelagic sealers, is that advanced by the Russian authorities, and the conjectural statements of some of the officials on the island, who are not in a position to know, and who base their opinions upon an examination of skins, in most cases salted, found upon the schooners which have been seized in the vicinity of the Komandorsky Islands. In their endeavour to show that these vessels had been nearer Russian Territorial waters, than was admitted by the masters thereof, the Russian authorities have recently stated, that the presence of skins taken from suckling females proved their proximity, because they could not have been taken except close in shore. This is, therefore, an admission that the 30-mile zone is an effective protection to the breeding females, the only class of seals the killing of which could be objected to, when the sealers are off Komandorsky Islands.

419. On the other hand, the testimony of the pelagic sealers, which forms appendices to this report, reveals that the percentage of females taken in that locality, was not nearly so large as was represented, being little over half of the catch, and that with few exceptions, the females taken were drying up, thus showing that their pups had been weaned and able to provide for themselves. It is also interesting to note here,

* Correspondence, Russia—No. 3 (1893) page 12.

the statement of Capt. Grunberg, of the Company's schooner "Leon," who said that the females killed at sea were not females suckling their young. This might occur he said within a mile or two from the shore, while in that condition, because at that time the mothers never go any farther to sea.

420. In the light of the evidence obtained, it cannot be said that suckling females are to any extent killed by the pelagic sealers.

Remarks.

421 In connection with the foregoing conclusions, the following remarks may not be out of place.

422. It is variously stated that females arrive at the Komandorsky Islands according to English dates as follows:—

Latter part of May.
May, June and July.
1st June.
15th June, bulls choose females.
Middle of June.
Middle of July (all females on rookeries).
27th July (all females on rookeries).

423. The month of May is the first date given, and the middle and 27th July, the last, at which latter dates, it is stated, all the females are on the rookeries, allowing for the late straggling arrivals. From this evidence, it may fairly be said that the majority of the breeding females are on the rookeries by the 15th June. It is generally admitted that they pup almost immediately on arrival.

424. The evidence as to the period during which they suckle is—

Mr. Grebnitzky, 1½ to 2 months, say 8 weeks.
Mr. Selivanoff, 3 or 4 weeks.
Mr. Paetz, 3 or 4 weeks.
Mr. Lindguist, 1½ month, say 6 weeks.
Mr. Badaeff, all the time they are on the rookeries.

425. Putting aside for the moment the latter statement, that they suckle from June to November, the weight of the evidence is in favour of from 3 to 6 weeks, and might fairly be accepted; but taking Mr. Grebnitzky's outside limit eight weeks, it would establish that on the 10th August, the main body of the breeding females would have weaned their pups, while many of them must have done so long before that date. If, however, as is justified by the evidence, the outside limit of the average period given—six weeks—be taken, then it is submitted, that by the 27th July, the vast majority of the females have ceased suckling their young, and this entirely irrespective of the large number which must have pupped prior to the 15th June.

426. Add to this the fact, that the appended statements by the pelagic sealers, show that while one of the vessels reached the vicinity of the Komandorsky Islands on the 3rd, the majority took their first seals there between the 21st and 25th July, and it certainly would not appear that the damage done to seal life, through the killing at sea of nursing mothers, can be as great as has been represented, even if it could be shown that these females did go such distances from the shore, whilst suckling their young.

427. Reverting to the statement of Alexey Badaeff, that the seals suckle their young from the time they arrive until they leave the islands, it may be said that he was misled by the presence of some females in milk, or suckling females, late in the fall. Although Mr. Grebnitzky told me that mothers would nurse their young from 1½ to 2 months, in another connection he stated, that young seals were found with milk in their stomachs as late as November. He said he could not account for this because he did not know how long the seals suckled their young.

428. On the 29th August, five females were killed and examined in my presence. Four of these showed signs of milk, although drying up. Dr. Slunin stated he had observed that, in 1892, as late as the 14th October, similar conditions as to milk existed in females he had examined.

429. It would thus appear that females are found showing traces of milk, almost up to the time of their departure from the islands.

430. This is no indication, however, that a female necessarily suckles her young for any lengthy period, and is quite easily accounted for in the accompanying evidence.

431. The mothers begin arriving in May, and stragglers continue to arrive until the end of July. Here then is a period of two months between the earliest and latest arrivals, and consequently births. The majority pup between these dates, but there are some which pup earlier, and undoubtedly some which pup at this late date. Assuming the period of suckling is six weeks, and taking the date given as the last arrival of breeding females—27th July—nursing mothers can be accounted for up to the 7th September, after which date traces of milk must still be observable, during the process of drying up.

432. How long after a female has weaned her pup she will show traces of milk, is an interesting question which might be enquired into in the future.

433. During my stay on the islands, in the latter part of August, it was very apparent and required no technical knowledge to observe, that while the mass of the pups were quite large and taking care of themselves, there were a number of young ones, of different sizes and ages, which still required the fostering care of the mothers, which must necessarily be in milk.

434. These instances, however, are exceptional, and apparently altogether abnormal, so far as the general habits of the animals are concerned.

435. In view of the otherwise well regulated natural conditions of seal life, it appears singular that these exceptions should obtain, and it would be interesting to discover how far they are due to the possible mating of the holluschickie with the females, either in the water or on the land.

436. Another point which suggests itself here is that these admittedly late arrivals, both of females and holluschickie, are not unlikely to be seals erroneously said to be returning to the islands, after excursions therefrom for food or for other purposes.

(*b.*) THE MORTALITY OF PUPS ON THE ISLANDS.

437. The evidence as to the extent of mortality among pups, cannot be regarded as at all conclusive, nor in fact can any reliance be placed upon it. The lack of knowledge displayed by those permanently residing upon the islands, on this point, is remarkable, because of all the questions affecting seal life, this is perhaps the easiest to solve, involving as it does the mere counting of carcasses.

438. It is simply established that there are some dead pups on the islands, and some of those consulted, expressed the opinion that there were a greater number in 1892 than in 1891 and 1893. These statements, however, are so evidently conjectural, that no weight could attach thereto.

439. Mr. Grebnitzky, the Russian Administrator, acknowledged that little could be said about the relative number of dead pups on the rookeries, because the officials do not go there. He had not noticed many dead pups during the past two years, and he attempted no comparison between 1892 and 1893. He also stated that no record of dead pups was kept. The same reason renders the statements of the other officials valueless.

440. Mr. Klugé, the Company's agent on Copper Island, ventured the statement that there were fewer dead pups this year than last, because there were fewer pups born. He is singular in this statement, however, as the preponderance of the evidence is in favour of an increased number of pups.

441. Without exception, the death of pups was attributed to what may be termed natural causes ; they are :—

Born sickly, still-born, crushed by the bulls, smothered by the breeding animals, killed by the surf during storms, drowned while learning to swim, wandered from mothers. No epidemic was known ; no natural enemies were blamed.

442. It is worthy of notice, and may be accepted as very significant, that in no one instance was the mortality attributed, either directly or indirectly, to pelagic sealers.

443. In this connection, attention is directed to a statement by Thomas H. Brown (see appendix No. 16), a seal hunter, to the effect that in 1888, while engaged as one of the boat steerers on board the sealing schooner "Maggie Mac," he got quite near the shore of Copper Island. He noticed about 100 dead pups floating on the water, from a few hundred yards to half a mile off shore. His boat was fired upon from the shore and pierced by several bullets. He could express no opinion whatever as to the cause of the death of these pups. That year, he says, there were not more than two or three vessels sealing in the vicinity of the islands.

444. Apart entirely from any destructive agencies which might be particularized, there must, where so many thousands of animals are born, be a large number of deaths for which no explanation need be sought, as would be the case where any large body of mammals congregate to reproduce their species.

445. My own observations in this regard, described in detail elsewhere, lead me to the conclusion that the percentage of dead pups upon the rookeries, is much larger than those residing upon the islands seem to have any appreciation of. They admit that no measures have been taken to establish the facts of the case, either during the time the seals are on the islands, or after they have left.

446. In view of all the facts, I must record my opinion that not only would it be possible, but comparatively easy, after the herd had migrated from the islands, for those in charge of the rookeries to make a most thorough examination of every inch of the ground which had been covered by the seals. This would enable them to count each dead pup, and state the number with absolute correctness. During this process the carcasses could be removed, and the following years, by a repetition of the work, the number of seals which had actually died each and every year, could be established with the utmost exactness.

(*d.*) AS TO THE EXISTENCE OF "BANKS" OR SEALING GROUNDS AROUND THE ISLANDS.

447. With regard to division (*d*) as to the existence of "banks" or sealing grounds around the islands, the incidental question of the presence of fish in the vicinity of the islands may be considered in conjunction with H. E. Mr. Chichkine's letter of 12th (24th) February, 1893, in which he explains that the 30-mile zone was asked, "with a view to protect the banks, known by sealers as sealing grounds."

448. It is submitted that the existence of such "banks" has been disproven, neither Russian men-of-war nor sealers ever having been able to find them, although systematically sounding therefor. There is the single exception of a bank north of Behring Island, reported by Captain R. N. Crowell, of the sealing schooner "Brenda" in an entirely different direction from the so-called "sealing grounds" hitherto resorted to by the sealers, the position of its centre being latitude 58° N, longitude 170° E., and therefore about 200 miles off, instead of 30.

449. All the evidence that could be collected, and my personal observations show, that enormous quantities of fish food of various kinds, can be found at all times between the migration of seals to the islands and the date they leave in the fall, not only close in shore, but at great distances therefrom.

450. If it might be held that the language used by H. E. Mr. Chichkine did not necessarily apply to actual fishing "banks," where soundings could be obtained, but in a general sense to localities, where fish food of different kinds can be found, it does not appear that the reference is any more to the point. If the presence of fish, 30 miles from shore, is alone sufficient reason for the prohibition of pelagic sealing within that zone, it would appear difficult to decide how far beyond that distance, their proven presence as far as 150 miles and 200 miles off, would justify an extension of the zone, especially when seals are taken at greater distances from the shore. Indeed, it may be said, that between 60 and 80 miles off, fish are quite as abundant as at 30 miles, as also are they from that point shorewards. Admitting the principle as sound, the zone could just as consistently be fixed at 200 as at 30 miles.

451. It may also he noted that this zone was asked primarily for the protection of the suckling females, as against the pelagic sealers killing them at the time they are performing those functions. Apart entirely from the fact that the preponderance

of the evidence collected, tends to show that the great body of suckling females do not wander far from the rookeries, at the time their presence is absolutely necessary for the nourishment of the pups, it is a most interesting fact, that the majority of the sealers took their first seals in that vicinity, between the 21st and 25th July, and they all bear witness that the females they took were drying up, as regards milk.

(*e.*) WHETHER, IF FEMALES DROPPED THEIR YOUNG AT SEA OR LOST THEM ON THE ISLANDS, THEY WOULD RESORT TO THE ISLANDS.

452. The views expressed on the subject under this heading, must of necessity possess but little value, as no one could be in a position to give conclusive answers.

453. The opinion of Mr. Grebnitzky, that while remaining on shore, under either of these conditions, the females would not copulate, and his statement to the Russian Government, that they would be liable to illness and some would die, before reaching the rookeries, do not appear to be based upon any actual observations, which could lead to such conclusions, any more than does his statement that such females could readily be distinguished by the roughness of their fur.

454. The general opinion is that they would resort to the rookeries under these circumstances, and the reasons given are as follows.

Cows have been seen there which had no pups to look after;
Their natural instinct would lead them to seek service of the bulls;
Premature births may occur as with other animals, but they still have other functions to perform.

455. Pelagic sealers state that they took seals in milk which must have pupped elsewhere than on the known rookeries, or lost their pups at sea.

(*f.*) THE MIGRATION ROUTES OF SEALS IN ASIATIC WATERS.

456. The detailed evidence shows that the commanding officers of both Her Majesty's ships, and those of the Russian Navy, cruising in the vicinity of the Komandorsky Islands, could express no opinion from personal observations, on the subject of the migration routes of the seals. The Russian Commanders depended for their views, entirely upon what they had observed from the logs of the seized sealing vessels, and conversations had with the masters thereof. Nor were other parties, consulted on the islands and in the vicinity thereof, any better informed on this particular phase of the question, apart from deductions drawn from what they had heard.

457. The trend of opinion was that the seals come and go, following along the Kurile Islands, and the Islands of Yesso and Nipon, but of their winter habitat they could form no opinion.

458. On the other hand, the letter of Mr. Welsh to Mr. Malowansky, written last April, stated that large catches of seals had been, and were being made by pelagic sealers, about 150 miles east and 250 miles north of the harbour of Yokohama. The preponderance of the evidence obtained from the pelagic sealers was to the effect that while they followed the seals up the Japan coast, along the Islands of Nipon and Yesso, they lost the herd off the island of Sikotan, at the southernmost point of the Kurile Islands. Some were taken however off Staten Island, still further to the northward.

459. W. H. Whitely, master of the schooner "Mermaid" noticed (about 25th June) hundreds of seals entering the first pass into Okhotsk Sea. The schooners "Beatrice" of Vancouver and "Rattler" of San Francisco, followed the seals into the sea without results.

460. Captain O'Leary of the schooner "Geneva" and Captain Byers of the schooner "Carlotta G. Cox" were of the opinion that the seals wintered where they were first met by the sealers, in the months of March and April.

461. An examination of the positions where the pelagic sealers caught their seals, which are given in detail in the appendices to this report, Nos. 22 to 34, will be of interest in this connection, as the data must establish the route of the seals along the Japan coast, from the month of March until they reach the islands.

462. The statements reveal that, by the sealers from whom this information was obtained, the first seal taken on the Japan coast was secured by the schooner "Beatrice" of Vancouver, on the 21st March in latitude 37° 11″ north, longitude 142° 34″ east, a distance of about 75 miles off the Japan coast.

The first catches made by the other vessels on this coast were as follows :—

"Mermaid"	March	25
"Casco"	"	27
"Carlotta G. Cox"	"	28
"Vera"	"	29
"Geneva"	April	1
"Agnes Macdonald"	"	2
"Arietas"	"	7
"W. P. Hall"	"	7
"Sadie Turpel"	"	19

463. The greatest area covered by the vessels, in their first catch, was between latitude 33° 15′ N., longitude 140° 3′ E., and latitude 39° 22′ N., longitude 145° E. Approximately this embraces a water area extending from 100 miles to the southward of Yokohama Harbour, to within 100 miles of the northern point of Nipon Island.

The dates upon which the last seals were taken on the Japan coast were :

"Mermaid"	June	19
"Casco"	"	21
"Agnes Macdonald"	"	23
"Arietas"	"	24
"W. P. Hall"	"	29
"Carlotta G. Cox"	"	30
"Sadie Turpel"	July	4
"Geneva"	"	7
"Vera"	"	14
"Beatrice"	"	18

464. These vessels covered an area comprised between latitude 43° 59′ N., and longitude 148° 14′ E, and latitude 44° 58′ N. and longitude 155° 58′ E., extending from Tsugar Strait, to about 300 miles of the east point of Staten Island, one of the southernmost of the Kuriles.

465. It is therefore established, that by this portion of the pelagic sealing fleet, the seals were met about 75 miles off the Japan coast as early as the month of March, and were followed along the Islands of Nipon and Yesso continuously, until between the 19th June and middle of July. This accounts for their movements for the space of nearly five months, and as they do not leave the islands until November, a further period of four months may be added.

466. Therefore, there remains only three months of the year during which their location and movements are in doubt.

467. As some portion of this time must necessarily be taken up in migrations from the islands, it is fair to assume that these migrations do not differ materially from those to the islands, and if but half the time taken to perform the spring journey, is expended for the fall one, there can be no alternative but to conclude that the winter habitat of the Komandorsky Island herd of seals, is along the Japan coast, where they were met by the sealers this spring, or very close to that position.

468. If it be contended that they wintered at great distances out to sea, it must be remembered that they have but three months in which to make the journey from the islands to their objective point, fulfill their functions there, and from that point to return to the coast of Japan.

469. When it is considered that between four and five months are occupied by them to cover the distance between Yokohama and the Seal Islands, this hypothesis loses weight.

(*g*.) THE AVERAGE DATES OF LANDING AND DEPARTURE OF SEALS, AND WHETHER FEMALES LAND UNTIL THEY RETURN TO GIVE BIRTH TO THEIR FIRST PUP.

470. The remarks under the headings (*a*) and (*c*) deal with the first question involved in this connection, although an examination of the detailed evidence, as to the dates of the arrival and departure of seals would be of interest

471. Touching the point as to whether females land on the islands, from the time they leave as pups until they return to give birth to their first pup, it will be observed that the evidence of the residents of the islands is unanimous. They all state that young females are found in the "drives" mixed with the bachelors.

472. Particular attention is directed to the statement of Alexander Selivanoff that in 1892 he made a "drive," calculating to take about 2,600 skins, but he discovered that there were over 1,000 young females mixed with the bachelors.*

(*h.*) EFFECT UPON ASIATIC AND AMERICAN ISLANDS OF OPERATIONS ON EITHER, AND THEIR RELATIVE CONDITIONS.

473. The evidence touching the effect upon the Komandorsky and Pribylov Islands, of practices upon either, or upon Robben Reef, and their relative condition in years of scarcity or abundance of seals, may be summarized as follows:—

474. The opinions of the parties consulted were unanimous that no operations on either group, could in the slightest degree have any bearing upon the other.

475. If any effect were possible it could only be from practices on Robben Reef, as although the seals frequenting the Okhotsk Sea do not go as far north as Komandorsky Islands, yet they are practically of the same herd.

476. They were also quite pronounced in the view that the herds of seals resorting to the American and Russian Islands, are separate and distinct, and they go so far as to say that they have observed a difference in the appearance of the skins, when they have had the opportunity of examining the catch of seized pelagic sealers.

477. Attention is directed to the statement of Alexander Selivanoff that in 1892, at North Rookery, he noticed three bulls so different in appearance from those usually resorting thereto, as to cause discussion among the natives; one of whom, who had formerly been at St. Paul Island (Pribylov), stated them to be the same as he had seen there. That year he also observed two holluschickie, quite different in appearance from the Komandorsky Island herd.

(*i.*) LENGTH OF TIME A FEMALE SEAL WILL BEAR YOUNG AND A MALE RENDER ROOKERY SERVICE.

478. No evidence of value was obtainable regarding the length of time during which a female seal will continue to bear young, or how long a male may render efficient service on the rookeries.

479. Few people would venture to express an opinion on the subject, and those who did, did so on mere assumption.

480. Mr. Grebnitzky thought females would average 10 births, and "bulls" would serve the females 15 years.

481. Dr. Slunin, after examining the reproductive organs of five female seals, which operations are described in this report, stated that the appearance of white spots on the uterus of two of them, led him to suppose that they had probably given birth to five and ten pups respectively, these figures representing the number of spots observable.

482. If this theory be correct, there is easy and simple means provided for the establishment of the number of pups to which a female will give birth, and consequently the number of years she will reproduce her species.

(*j.*) THE EXISTENCE AND HABITS OF BARREN FEMALES AND EFFETE MALES.

483. Regarding the existence and habits of barren females and effete males, it may be said that while the evidence is somewhat contradictory it points to the existence of both.

484. Mr. Grebnitzky says the barren females are old seals which do not go on the rookeries for service by the bulls but lay outside near the bachelors.

485. Attention is also called to his statement that 200 or 300 old bulls this year arrived at the islands, with the females, and then left without serving them.

486. Mr. Paetz stated that every year a few old bulls, no longer able for rookery service, are to be seen.

487. The evidence of the pelagic sealers establishes that a considerable number of barren females were taken along the Japan coast, mixed with the male seals. Also that this class of seals was taken off the Komandorsky Islands.

488. The logical conclusion is, that no reasonable doubt can exist as to barren females forming a very appreciable feature in the seal herd. The killing of this class of seals is much less destructive to seal life than is the killing of young males.

* Appendix No. 3.

(*k.*) CONDITION OF ROOKERIES COMPARED WITH PREVIOUS YEARS.

489. Respecting the condition of the rookeries as to numbers, compared with previous years, I may say that so far as my own personal observations were concerned, I had no method of comparison, never having seen the rookeries before. My first impression, however, was that adding the seals which were disporting in the water to those which were on the land, it would be difficult to provide room for many more without an expansion of the rookeries shorewards. Each time I saw them they appeared to me to be so densely occupied that it looked as if there would scarcely be room for the enormous numbers playing along the water fringes.

490. Mr. Grebnitzky, Commander Burr and Mr. Klugé, are the only ones who said that there were fewer seals on the rookeries than in previous years.

491. Commander Burr expressed the opinion that there were fewer seals on the rookeries this year than there were two years ago, and that the seals were smaller. Mr. Grebnitzky, however, reports to the Russian Government that the skins taken were large, and Mr. Malowansky, of the company's vessel "Kotik," assured me that the skins were fine large ones, those on Copper Island averaging larger than those on Behring Island.

492. Mr. Klugé could not say to what extent they had decreased, but he believed there were fewer seals on the rookeries than in 1892.

493. Mr. Grebnitzky stated that there was a decrease of three-tenths as compared with last year, and three-fifths compared with the year before. He then proceeded to state that there were more pups and more females on Behring Island than last year, and there were more bulls on Copper Island than last year, and that on that island there was an increase in the number of yearlings, though a decrease in the number of that class on Behring Island was noticeable. It is not clear how Mr. Grebnitzky reaches his conclusion as to the decreases of three-tenths and three-fifths. Besides, according to his own showing, if there was any decrease it occurred in the class of holluschickie, whereas all Russian authorities appear to agree in the statement that 90 per cent of the catch of the pelagic sealers is of females.

494. The beginning of the alleged decrease in the number of the seals is fixed as following the year 1888, and is associated with pelagic sealing.

495. This was the third year from the time of the expiry of the lease of the Alaska Commercial Company, and the lessees took 45,000 skins.

In 1890 they took 55,727.
In 1889 do 55,493.
In 1888 do 45,000

496. Although said to be failing since 1888, it will be observed that during 1889 and 1890 the lessees of the islands killed, each year, a number of seals largely in excess of that taken on any year during their twenty years' franchise.

The three years prior to this the catches were:—

1885 41,737
1886..... 44,500
1887..... 46,754

497. The figures are suggestive that towards the end of their lease, the Company taxed the rookeries to their utmost extent, and no other result than a failing supply could be looked for, entirely irrespective of the operations of the pelagic sealers, who, until quite recently, did not resort to those waters in any numbers.

498. Passing to the evidence on the other hand, it will be observed Alexander Selivanoff, Alexey Badaeff and Mr. Paetz, the resident agent at Behring Island, all of whom are well acquainted with the rookeries, testify to an increased number of seals upon the rookeries. It is stated most positively that there were more seals on the rookeries in 1892 than in 1891, and more in 1893 than in 1892. The increase is said to be general, embracing all classes of seals, and their testimony is unanimous, that the rookeries are in better condition than for the past three years. I may add, that when standing overlooking the rookeries with Dr. Slunin, who had also been there last year, I asked him how they compared in point of numbers of seals. He unhesitatingly answered that the numbers had increased.

499. In the light of all the evidence, I feel justified in concluding that, generally speaking, there is nothing to show a decrease in the number of seals on the Komandorsky Islands, in 1893, as compared with previous years. On the contrary, the testimony favours the statement that there has been an appreciable increase in the

number during the past two years. This is reasonable to expect, in view of the fact that during the past three years the average take of the lessees has been about 30,000, as against an average of over 50,000 taken by the former lessees in the previous three years.

500. A reduction of 20,000 in the number annually killed, affords at least a partial rest to the rookeries. If it be held that the take was limited only because of the absence of holluschickie, then any abnormal diminution in this class must be accounted for otherwise than by pelagic sealing.

501. The evidence regarding Robben Island is very meagre, and is to the effect that there has been a decrease in the number of seals there for some years past. As to its condition this year, however, the fact remains that the Company took therefrom 1,532 sealskins, whereas, in 1892, it was not considered sufficiently profitable to kill any there. In 1891, 540 only were taken, and in 1890 the outgoing Company took 1,453, probably a maximum number.

502. Thus the present year's take was larger than that of 1890, although no seals had been taken there by the Company between 1885 and that year.*

(*m.*) THE EFFICIENCY OR INEFFICIENCY OF THE PROTECTIVE ZONE.

503. With regard to the efficiency or inefficiency of the protective zone around the islands, it may be said that the information obtained, largely points to its effectiveness in affording a general protection to the breeding seals, after they have reached the islands.

504. It is fair to assume from the detailed evidence set out, under the different headings that, during the period a female is necessarily suckling her young, that is to say before she has begun to wean her pup, she does not go to any great distances from the shore, or remain away for any length of time. Later on it appears they do so, and this is in accord with the statements of the pelagic sealers, that the large majority of the seals showing milk were drying up. Some seals with a free flow of milk were taken, but the number is stated to be small and some of them were taken along the Japan coast and elsewhere, under circumstances which point to the conclusion that they had dropped their pups at sea, or on the shores where no regular rookeries exist. According to the statements of the sealers, this class did not form any considerable portion of their catch. Such seals were exceptional, and taken comparatively early.

505. One fact which I observed, and which is universally admitted by those consulted, who had the opportunity of observing the seals at sea, was that the nearer the shore was approached the more seals were to be seen. In the cruising tracks of the vessels on the 30-mile belt, very few seals were to be seen at all; while on approaching the shore, the numbers increased with the diminishing distance therefrom. While this appears to be an indisputable fact, there is the further fact to be considered, that to distances as far out as 60, 80, and 100 miles, they are taken by the sealers principally in August and September, although according to Mr. Grebnitsky, late in August and during September, the seals made no migration to sea, that being the shedding period.

506. It does not seem that the fact that seals are intercepted, in their migrations to the islands, is a sufficient ground upon which to base a claim to a protective zone. If it were the fixing of such zone must be purely arbitrary, as such interception may be said to begin on the Japan coast.

507. It will be noticed, that some of the Russian officers expressed the opinion that if the Russian Government had the same authority within the 30-mile zone, as they had within their territorial limit, such a zone would afford ample protection.

508. It would certainly seem that the arrangement between Her Majesty's Government and that of Russia, providing a 30-mile protective zone around the Russian Seal Islands during the year 1893, has been successful in protecting the breeding animals, particularly at the time they necessarily nurse their young.

TABULATED STATEMENT OF OPERATIONS AND POSITIONS OF PELAGIC SEALERS.

509. For convenience of ready reference, I have prepared the following tabulation of the operations of such of the pelagic sealers from whom I procured data. The further positions from day to day, where seals were taken on the Japan coast, and in the vicinity of Komandorsky Islands, will be found in the appendices numbered 22 to 34, inclusive.

* Rept. B. S. Commission, p. 214.

TABULATED STATEMENT from declarations of Pelagic Sealers, in 1893.

No.	Master.	Vessel.	First Seal on Japan coast.	Position where taken.	Last Seal on Japan coast.	Position where taken.	Range of positions on Japan coast.	First Seal in waters around Komandorsky Islands.	Position where taken.	Last Seal in waters around Komandorsky Isl'ds.	Position where taken.	Range of Positions around Komandorsky Islands.
				Lat. N. Long. E.		Lat. N. Long. E.	Lat. N. Long. E.		Lat. N. Long. E.		Lat. N. Long. E.	Lat. N. Long. E.
1	Charles Leblanc.	"Sadie Turpel".....	April 19.....	39 22 143 12	July 4....	44 58 149 25	39° & 45° 141° & 149°	July 21...	53 40 166 40	Sept. 1...	53 10 168 24	53° & 56° 37′ 164° & 168° 30′
2	William Sheilds.	"Vera".....	March 29.....	34 46 140 03	do 14....	20 miles off Staten Island....	34° 46′ & 44° 53′ 140° & 148° 18′	do 23...	53 37 167 20	Aug. 5....	52 57 168 09	52° 57′ & 53° 37′ 167° 20′ & 168° 09′
3	Wentworth E. Baker.....	"Oscar and Hattie".....	.....	.....	.....	.....	.....	do 3...	53 00 169 00	Sept. 1....	Bet. 60 & 80 m. off	N. and S. of Isl'ds. from 60 to 80 m.
4	Otto Bucholz...	"Casco".....	Between 27th March and 18th April, along the coast, picked up a few seals on the road to Akishi..	33 15 142 50	.....	.....	40 to 45 miles off.....	.....	.....	.....	.....	.....
			Began sealing, with success, 24th April.....	40 31 143 42	June 21....	43 25 146 28	39° & 43° 142° & 146°	do 23...	53 36 167 01	Aug. 21....	53 59 168 28	53° & 55° 163° to 169° (45 miles off.)
5	Melville Cutler..	"Agnes McDonald"	April 2.....	38 52 142 42	do 23....	43 04 146 30	38 to 43, 142 to 147, 180 to 250 miles off Nipon and Yesso..	do 25...	53 10 167 54	Sept. 5....	52 40 168 00	52° to 54° 166° to 168°
6	W. H. Whitely.	"Mermaid".....	March 25.....	36 10 145 00	do 19....	Foggy no posit'n	38° to 42° 143° to 146°	do 23...	53 50 166 00	do 4....	53 06 169 10	53° to 54° 03′ 166° to 169° 10′
7	John B. Brown.	"W. P. Hall".....	April 7.....	36 38 144 07	do 29....	42 53 145 18	36° to 43° 144° to 147°	do 23...	53 15 168 41	do 16	53 31 168 44	52° 28′ & 53° 39′ 167° 15′ & 170° 13′
8	Wm. Cox.....	"Sapphire".....	.....	.....	.....	.....	.....	do 14...	52 42 165 08	Aug. 23 ...	53 12 167 24	52° 42′ & 53° 28′ 165° 08′ & 168° 55′ 80 to 100 miles south.
9	George Heater..	"Ainoko".....	.....	.....	.....	.....	.....	do 12...	53 43 166 00	July 16....	53 43 165 44	(Seized 22nd July, 1893.)
10	Alfred Bissett...	"Annie E. Paint"...	.....	.....	.....	.....	.....	do 12...	.....	Sept. 5....	.....	54° & 51° 50′ 164° 45′ & 170′ After 10th August ranged between 90 and 170 miles off shore.
11	Wm. O'Leary...	"Geneva".....	April 1.....	38 15 143 12	July 7....	43 00 155 58	38° 15′ to 43° 143° 12′ 155° 58′	do 23...	53 17 167 27	Aug. 27...	53 29 166 01	53° & 54° 165° & 167°
12	August G. Bjerre	"Beatrice" (Vancouver).....	March 21.....	37 11 142 34	do 18....	43 59 148 14	37° 11′ to 43° 59′ 142° & 146°	do 22...	53 36 168 15	do 11 ...	53 18 167 53	53° to 54° 168° to 169° 22′
13	Thos. H. Browne (hunter).....	"Agnes Macdonald"	April 2.....	.....	June 23....	.....	.....	do 25..	.....	Sept. 5....	.....	.....
14	John McLeod...	"Pioneer".....	Sealed this year on the American coast, but last year took the "Ariel" off Copper Island.	.....	.....	.....	.....	.....	Most seals taken from 60 to 80 miles off the island during July. Got none with young; do not remember as to milk. In July took 3 or 4 big bulls positively over 70 miles from Copper Island.....	.....	.....	.....
15	R. N. Crowell...	"Brenda".....	1892. *To Komandorsky Islands.*	.....	.....	.....	.....	.....	.....	.....	.....	.....
16	Capt. Byers.....	"C. G. Cox".....	March 28.....	39 22 145 00	June 30....	43 — 146 30	39° to 43° 142° to 146° 30′	do 15...	53 45 166 43	Aug. 26....	53 17 168 37	53° & 54° 158° & 169°
17	Abel Douglas...	"Arietas".....	April 7.....	37 35 144 33	do 24....	44 07 147 30	37° 28′ to 44° 07′ 143° 00′ 147° 30′	do 13...	53 20 168 00	Sept. 5....	52 41 169 26	53° to 54° 166° 51′, 169° 26′

No.	Kinds of Seals taken on the Japan Coast.	Condition of such seals.	Kinds of Seals taken around Komandorsky Islands.	Condition of same.	Migration routes.	As to feeding banks.
1	First few catches mostly all young males, after that pretty well mixed. On the whole half male and half female. Got 12 or 15 barren cows. Bulk of catch full sized seals; very few grey pups.	Heaviest in pup first week in June. Latter half of June between Yesso and Sikotan Islands got between 20 and 30 females in milk, 30 to 40 miles off. Stomachs of seals on Japan coast contained squid and small fish.	Two-thirds females and one-third males.	Very few had a full flow of milk. After 8th August went north of islands. Females taken there were drying up. Towards end of August had completely dried up. Stomachs contained considerable squid and small fish.	Shown by foregoing positions. On 20th August ran as far as 170 miles N.N.E. of Behring Island. Saw quite a number of big cows. Got six, stomachs contained fish food and squid.	Knows of no banks southward of Komandorsky Islands; but plenty surface fish as far out as 200 miles.
2	During March and April mixed. During May, a bunch all males and then a bunch all females—some barren cows.	The females in pup. Quite a number of barren cows. Heaviest in pup first week in June. But took a few in pup up to end of June. Majority taken during the last week in June, and first 12 days in July, were young males with some barren cows. A few cows in full milk. Stomachs of early catch comparatively empty; later on contained considerable fish food.	Mixed males and females, perhaps more females than males.	About half of the females had a pretty free flow of milk. The other half in different stages of drying up. The stomachs of the seals contained very little show of food.	Shown by foregoing positions. Lost the herd off the northern part of Staten Island.	Knows of no banks nor of anyone who does. Had tried 200 fathoms of line but got no soundings. Plenty of squid 30 miles off, cut up apparently by seals.
3	.....	.....	South of islands, mostly small seals. Seals taken to north of the islands were mixed males and females, about one-third males.	South of the islands, the few cows taken had a considerable show of milk. This was early in July. North of the island the females were drying up. Later on in August there was scarcely any sign of milk. One day, went 110 miles to the north. Here females showed least sign of milk, and appeared to be staying off the islands.	.....	Knows of no banks where soundings can be obtained. Tried for soundings three years, with 200 and 120 fathoms, discoloured water accounts for reported banks. North of the islands the waters were alive with salmon.
4	Majority males—never saw so many males.—Females in pup were taken all along.	Females in pup heaviest towards the end of June. Off Yesso Island several barren females.	Fully one-half males.	Poor and starved condition. Did not observe closely as to stages of milk.	Met seals in April and May off Nipon, between 20 and 70 miles off. Lost the herd in June off Sikotan.	Knows of no banks as far as 100 miles from islands, although had sounded for bottom fish with 120 fathoms of line.
5	Young male seals, cows in pup and a few barren cows.		Two-thirds females, the remainder young bulls.	Females had some show of milk, but in no instance a full flow, drying up with very little show towards the end. Stomachs of both males and females contained squid and small fish like smelt or capelin.	First met seals about 200 miles north of Yokohama from 180 to 200 miles off shore first week in April, got them all along Nipon and Yesso, and lost them off north part of Yesso, end of June.	Knows of no banks southward of the islands where any soundings can be had, but lots of surface fish are found 50 or 60 miles to the southward. Was among fish all the time. Lots of salmon.

No.	Kinds of Seals taken on the Japan Coast.	Condition of such seals.	Kinds of Seals taken around Komandorsky Islands.	Condition of such seals.	Migration.	As to Feeding banks.
6	Earliest catches between 25th March and 12th April principally young males with some cows in pup. Later on in May a good many cows, and in June about half the catch was of males. A large number of barren cows. About end of May two big "bulls."	In May a good many cows were heavy with pup. On 19th June two or three females in full milk about 50 miles off land. Foggy. No position. On the same day got the last seals in pup.	Mixed. Some days all cows, other days all males. On the whole a small percentage more of females.	Females in fuller milk during July. Beginning to dry up in first part of August, towards end of August had dried up. Last year when no extra limit around Komandorsky Islands got about 20 females, 25 miles off shore on the 9th day of July, nearly all of which had pups in them. During July and August stomachs of seals contain squid, and from middle to end of August seals are to be met with, with stomachs entirely empty, although squid and salmon are abundant all round. Others are fat and full of food.	First met seals 200 miles off Cape Inaboye 60 miles north of Yokohama and followed them to Sikotan Island (Kuriles). There lost them latter end of June. This year on 8th March, in open ocean caught one female with pup inside. Latitude 35° 00′ longitude; 170° 06′ E. 3,000 miles from Japan coast and 1,200 miles S. of Copper Island. Second mate of steamer "City of Pekin" reported they encountered large numbers of seals in this position during winter route of vessel.	Knows of no banks to the southward of Commander Islands. Tried for fish 30 miles off, but could find no bottom with 100 fathoms. There is a small "bank" 75 miles S.W. of Attou. Large quantities of squid around Komandorsky Islands everywhere as far off as 100 miles.
7	Two-thirds were cows. Towards end of season got large number of small male seals mixed in with large males and cows.	Off Yesso, end of June a few females in full flow of milk. Last cows in pup taken about 23rd June. Seals on Japan coast were rather lank, the stomachs showing very slight traces of food.	About half male and half female.	Could not say as to stage of milk, but did not notice any very free flow. Very few were fat, most being poor and thin.	Met seals first week in April in 36° 38′ N., 144° 07′ E., followed them along Japan until 29th June in 42° 53′ 145° 18′. The seals began to travel north off Akishi. After that they were all travellers. Captain Larrabee of a sailing ship reported that on 14th September, 1892, in 43° 30′ 162° 30′ E., he passed a large number of seals 720 miles off shore. And the year before about 70 or 80 miles N. of the above positions between 12th and 15th August he sailed through large bodies of seals.	Knows of no banks; nor do I know of any one who has got soundings. There is an abundance of salmon and squid as far off as 150 miles.
	☞90 per cent of the catch on the American coast were males.					
8	.....	.....	.....	Did not observe females closely enough to say as to stages of milk. On the Russian side the seals taken were nearly all full of squid, but on the American side the stomachs were empty except a few pebbles and in one a sealing shot.	Yearly for the past four years, vessels report that during July and August large bodies of seals are seen 600 miles south of Copper Island. 120 miles south of Ounimak Pass and from that to 80 miles south of Agattu, and between Agattu and Rat Island, 80 miles oceanwards the seals were just as plentiful as he ever saw them in Behring Sea. One day at this place got two with young unborn and one with milk.	Knows of no banks south of Komandorsky Islands, where soundings can be had. Small bank reported 75 miles southwest of Attou Island.

No.	Kinds of Seals taken on the Japan Coast.	Condition of such seals.	Kinds of Seals taken around Komandorsky Islands.	Condition of such seals.	Migration.	As to Feeding banks.
9	.....	.....	Out of 46 seals taken here, four were females.	The four females had a show of milk, but were drying up, the milk being clotted and in small quantity. This was from 12th to 16th July.		Knows of no "banks" around Komandorsky Islands.
10	.....	.....	In July principally small males, a few straggling cows; some barren cows and a few cows in milk. After 10th Aug., ranged from 90 to 120 miles off shore. Seals there principally males. Nearer shore more females.	In August about an equal number of males and females. The cows had very slight show of milk which had begun to turn yellow, thicken and dry up.	About 100 m., S. ¼ E. off Amchitka Island; took 8 seals while crossing the 180 meridian—4 were females heavy with pup. They could not reach either known rookery in time to pup.	Have seen discoloured water, but never got soundings with 150 fathoms of line. Squid, salmon and other fish in quantities anywhere from 60 to 120 miles off.
11	Mixed males and females. On 7th July, 300 m. off Kurile Islands took 40 seals all 3-year old, male and females; mostly males. Nothing to indicate they had been on land.		Mixed males and females, probably more females than males.	None of the females were in full milk, evidently drying up. In previous years observed odd females 80 miles off, with milk, and then would get females drying up.	Seals were on Japan coast this year, 1st April, all the way from 60 to 300 miles off Nipon; they work along Yesso. I believe they are to be found all winter where I first met them.	Never got sounding around Copper Islands nor do I know of anyone who has. Salmon and squid from 50 to 90 miles off shore to the southward.
12	First catches 10 per cent were young males. During May, nearly all young males.	Females in pup, but none in milk taken on Japan coast.	Only about 30 seals taken on this coast.		Shown by positions previously given.	
13	Mixed cows and males, but more cows than males.	Most of the cows were with pup, but there was quite a number of barren cows. Got seals in pup up to the 23rd June.	The majority females; about one-third males.	Not one had a full flow of milk the milk had pretty well dried up. Towards end of season only a slight trace of milk left.	....	Knows of no banks but there are plenty of squid and salmon outside the 30-mile limit.
14	.....	.....	.....	.....	Off Agattu Island, between 13th and 29th July, 75 miles S.W. Saw seals.	
15	.....	.....	Mixed males and females during the month of August, and up to 7th Sept.	None showed a full flow of milk, being in different stages of drying up.	1892—Saw lots of seals in northern part of Gulf of Kamtschatka, including sleeping cows, on August 28th.	The only bank he knows of there is north of Behring Island. The centre being in latitude 58° N., longitude 17° E.
16	Males, barren cows, and cows with pup, about ½ cows with pup, some young virgin cows.		Fewer females in this neighbourhood than ever before. About half males and half females.	Up to 29th July, most females were in full milk. After that it was quite apparent that the milk was drying up, and intermixing with the fat.	Shown by positions previously given.	No banks to the southward of Copper Island. Sounded with 100 fathoms of line looking for fish 58 miles off. Got no soundings. Plenty surface fish 100 miles off.
17	Principally young seals, about half male and half female. In April the females were virgins. Later on more females in pup. Quite a number of barren females in June, off Yesso Island, also non-breeding males and females.		Mixed cows and males; a few more females than males. A large number of young non-breeding seals, males and females.	Comparatively few females had a full flow of milk, only the first caught. Most of the females were drying up. Towards end of season only slightest traces discernible.	Shown by positions given.	Knows of no "banks"; has tried for soundings, but failed. In some places water has appearance of soundings which accounts for reported banks. Plenty of squid and salmon off the Islands.

SEIZURE OF BRITISH VESSELS UNDER THE PROVISIONAL AGREEMENT.

510. The following vessels were seized and otherwise interfered with by the Russian cruisers this season.

Schooner "Minnie" of Victoria, B.C.:

Seized by the Russian transport "Yakout," on the 17th July, in latitude 54° 21′ N., longitude 168° 38′ E., 21 miles south-east of Copper Island.

Schooner "Ainoko," of Victoria, B.C.:

Seized by the Russian transport "Yakout," on the 22nd July, 1893, in latitude 54° 23′ 5″ N., longitude 168° 32′ E., 16 miles south-east of Copper Island.

Schooner "Maud S." of Victoria, B.C.:

Seized by the Russian transport "Yakout," on 29th August, 1893, 22 miles south-west of Copper Island.

Schooner "Arctic" of Shanghai:

Seized by the Russian cruiser "Zabiaka," 3rd August, 1893, in latitude 54° 15′ N., longitude 167° 31′ E., 28 miles off Komandorsky Islands.

511. These vessels were ordered to Yokohama for adjudication. The "Anioko" and "Minnie" proceeded to Victoria, where their cases are now pending. The "Maud S." sailed for Yokohama, where she was formally proceeded against and acquitted of any breach of the Act under the agreement, or Order in Council thereunder. The "Arctic" also reported at Yokohama.

512. The only other interference with British vessels, so far as could be learned, was in the case of the steam schooner "Warlock," of Victoria, B.C., which vessel put into the port of Petropaulovski, on the Kamtschatka coast, for fuel and water, after a rough voyage along the Aleutian Islands, during which no seal skins had been procured. Her papers and sealing equipment were removed from her by the Russian cruiser "Zabiaka" and she was given papers to Yokohama, where her captain was informed he would receive his original papers and equipment, on application to H. M. Consul. This vessel was not seized, the action of the Russian authorities being explained as a safeguard against a possible breach of the agreement; the master of the "Warlock" having evinced the desire of reaching Yokohama as soon as possible.

CONCLUSION.

513. In concluding my report, I desire to acknowledge my indebtedness to those from whom, I have received assistance, hospitality and courtesy, while pursuing the enquiries incidental to my mission, of which I must express a high appreciation.

514. To the Commanders of the Imperial Russian ships, "Zabiaka" and "Yakout," the officials of the Russian Government, and the Russian Seal-skin Company's Agents on the Komandorsky Islands.

515. To Mr. Malowansky, the Company'sAgent on board the ss. "Kotik," and to Mr. Paetz, the Company's Agent on Behring Island, I am especially indebted for courtesies, while on board the "Kotik" and on the Island.

516. To Admiral the Hon. Sir Edmund Fremantle, K.C.B., C.M.G.; the Commanders of H. M. ships "Mercury" and "Porpoise" and most especially to the Commander, officers and men of H.M.S. "Archer" for uniform courtesy and attention shown and ready assistance rendered.

517. To H. B. M. Chargé d'Affaires at Tokio.

518. To H. B. M. Consuls at Yokohama and Hakodate.

519. To Mr. A. R. Milne, Collector of Customs at Victoria, British Columbia.

I have the honour to be, My Lord,

Your Lordship's most obedient humble servant,

ROBERT N. VENNING.

The Right Honourable
THE EARL OF ROSEBERY, K.G.,
&c., &c., &c.

APPENDICES.

Statements by Russian Officials and Employees of the Russian Sealskin Company on the Russian Seal Islands.

APPENDIX No. 1.

Synopsis of the Report for 1893, of Mr. Grebnitzky, Russian Administrator, at Komandorsky Islands, as translated by Messrs. Grunwaldt and Malowansky, in his presence, from the Draft by Mr. Grebnitzky, to the Russian Minister of Foreign Affairs:—

Migrations from the shore of from 200 to 300 miles, for the purpose of exercise or seeking food, are mere promenades for seals of all kinds, except "bulls." Pups come into the world weak, and require considerable nourishment from their mothers. The females pup principally in May and June, and suckle their young for one and a half months or two months. The following year, ten months old pups come to the islands in company with the mothers, while in the second year they arrive separately, later than the mothers.

Some females which are disturbed in their migrations to the breeding rookeries lose their pups in the water. They are then liable to illness, and some die before reaching the rookeries. Those of them which succeed in reaching the shore lose the instinct which calls for service of the "bulls." If the mothers die in July or August, the pups must necessarily perish for want of nourishment, but in the event of the mother dying in October or November, the pups are quite capable of taking care of themselves if they can find young squid and small fish near shore; but such pups are always slow in growth and yield poor skins.

If a female loses her pup in the water, she can be readily distinguished by the condition of the fur, which is rough and thin under such circumstances.

During the shedding period, late in August, and during the month of September, the seals remain close on shore, making no migrations to sea.

The "bulls" and breeding females, must necessarily come on shore to perform their procreative functions, the females to pup and be served by the "bulls." The former cannot pup in the water, as the pups would drown; neither can they be served in the water.

Mr. Grebnitzky then expresses his opinion of pelagic sealing as follows:—

Causing a general decrease of seals on the breeding rookeries, especially of females, only about one-half the females being noticed on the rookeries since 1888, as compared with the number for some years prior to that date. Considerable increase in the number of dead pups since 1888.

Generally speaking, there is a considerable number of barren females (old) which do not go on the rookeries for service by the "bulls," but lay outside near the holluschickie. These barren females are easily frightened.

He thinks that the seals migrate further from the Komandorsky Islands than from the Pribylovs for feeding purposes, as there are a number of shallow banks which afford food.

These banks, he says, are situated to the southward of Copper Island, and to the northward from Behring Island about 150 miles.*

The report proceeds: The salmon arrive in the vicinity of Behring Island in the end of June, and are observed arriving till the end of August, and the seals go out sixty miles to meet them. He states the seals are fond of salmon, and there have been times when they went up the rivers for them.

It is a very simple matter to tell the skin of a female seal from that of a male even if it has been salted; and if it had not been very long salted he could tell whether or not the mother had been suckling the young.

The Komandorsky and Pribylov Island herds are separate and distinct, those of the Komandorsky Islands are distinguishable by their being greyer in colour, while the head of the animal is narrower and finer.

The seals migrate from the Komandorsky Islands about the middle of November, moving south to the Japan Sea.

The Robben Island herd move down the Japanese Coast in same direction, and seals are found landed on islands inside the Kuriles. Some, instead of going to Robben Island, distribute themselves on other islands in the Okhotsh Sea.

* This opinion he bases upon the charts of confiscated schooners, from which he has observed that seals are captured by them from 100 to 150 miles from shore.

Synopsis of a telegram prepared by Mr. Grebnitzy, to be sent to the Minister of Domains, at St. Petersburg, affecting the operations of 1893, on Komandorsky Islands:—

Nine-tenths of the sealing schooners were on the Japan Coast about February, because they did not find enough seals on the American coast. All sealing schooners keep in the track of the seals from forty to ninety miles off the south end of Copper Island, and prevent them from going further out and coming in. Plenty of seals are in the sea, and on the coast of Kamtschatka. Fewer seals this year on rookeries. Slight decrease of females on Copper Island this year. Plenty bulls. The skins taken were large. International action alone can efficiently protect sealing industry.

APPENDIX No. 2.

STATEMENT BY WALDEMAR PAETZ, 21ST AUGUST (4TH SEPTEMBER), 1893, AT NIKOLSKI, BEHRING ISLAND.

I have been on Behring Island three years in the capacity of agent for the Russian Seal-skin Company. I visited the rookeries four or five times each year during 1891 and 1892, and have had good opportunities of observing their condition. This year I only made one visit to the North Rookery.

There were last year, and are this year, more seals on the North Rookery than there were during 1891, the first year I spent on the island. Not only are there more seals generally speaking, but there is a considerable increase in number of female seals. There are also more pups this year. The first year I came here, there were very few bulls on the rookeries, but last year the number of bulls increased, and this year it increased again over last year. As regards "bachelors" there is very little difference between this year and last, but there is a considerable increase in the number of females. I consider the rookery to be in better condition this year as regards number of seals, than during 1891 and 1892.

When I first came to the island, I was quite interested in the question of the habits of seals, and got all the information I could in conversation with the natives. If females while suckling their young do go off the rookeries for food, they do not go any distance from the shore. They would go early in the morning and soon return to the rookeries.

I have not observed or heard of any more dead pups one year than another, during my stay here. What few dead pups there are, from year to year, are mostly killed by the surf during storms.

From my own observation and what I have been able to gather from the natives, I believe I can safely say that a young pup will be suckled by its mother for about three or four weeks before being weaned.

I do not believe that a female seal will go any considerable distance to sea for food until the first week in September, if she is a breeding female—that is if she has pupped. They can get food nearer the islands.

If females should drop their young at sea or lose them on the islands, they would remain on the islands, just the same as the other breeding females; as giving birth to their young is not the only reason for their migrations to the islands. Their natural instinct also brings them there to receive service from the bulls. This I consider is proven by the fact that there are some barren females which remain on the islands, although having no young.

With regard to the question as to whether female seals ever land on the islands from the time they leave them as pups, until they return to the rookeries to give birth to their first pup, I may state that there is no doubt that they do, as young females are often observed mixed with the holluschickie, and otherwise on the island.

I am decidedly of opinion that the seal herd which frequents the Pribyloff Islands is a distinct one from that which visits the Komandorsky Islands, and therefore any operations on those islands could in no way affect the Komandorsky Islands and *vice versâ*. Last year I handled the skins taken from the seized schooner "Rosie Olsen," among which were some taken on the American side, and I observed such a marked difference in the appearance of these skins as compared with those taken on the Russian side, that it convinced me of the distinctness of the herds. Also, I believe that the seals which visit Robben Island never get this far, and although of the same herd practically, any operations there would not affect the Komandorsky Islands in any degree.

I cannot say as to how long a female will continue to bear young, nor how long a male seal will render efficient service on the rookeries; but I know that every year there are upon the rookeries, a few old bulls which are no longer able for rookery service. The number of this class is small, but they do occur each year.

As to the efficiency of the protective zone agreed to between the Government of Russia and that of Great Britain, for the current year, I am of opinion that it has afforded ample protection to the breeding females especially, for the reason that I have above explained that they do not go that far out to sea during the time they are nursing their young. Generally speaking, from what I have observed, and from what I have gathered in conversation with the natives here, I do not believe that any of the seals go any great distances from the rookeries, from the time they land in the spring until they leave in the fall. I do not believe they go at any time during their stay here, to a greater distance than the protective zone, if indeed that far. I cannot see any reason for their doing so, as they can get all the food they require close inshore.

I do not know anything about the Copper Island rookeries.

On South Rookery, Behring Island, which is a small rookery, there are also more seals this year than last year. In 1891, there were very few seals on this rookery, more in 1892, and still more this year. I was not on the rookery this year myself, but I was informed by the natives that the seals were more numerous there.

So far as Behring Island is concerned, I consider the rookeries in much better condition this year than last, in point of numbers of seals.

The bulls begin to leave the rookeries early in August, but the females and killables remain until the latter part of October, and during the early part of November there are very few to be seen on the rookeries, some females, some pups and some killables.

WALDEMAR PAETZ.

APPENDIX No. 3.

STATEMENT BY ALEXANDER SELIVANOFF, AT NIKOLSKI, 23RD AUGUST (4TH SEPTEMBER), 1893.

I have resided on Komandorsky Islands for twelve years, six years on Copper Island and six years on Behring. I came here from Petropaulovski, as a Russian official under the Administration, and I have had good opportunities of observing the condition of the rookeries, as during the whole of the killing seasons I have been at the rookeries, except this year, when I left there in the month of June.

As regards the number of seals on the rookeries this year, from personal experience I can say that there is an increase as compared with last year. This increase is noticeable in all classes of seals, but there is an increase particularly in the number of females and pups, while there is also an increase in the number of bulls. There were over 1,000 bulls on the rookeries this year, but this class of seals begin to leave towards the end of July and first part of August.

During the year 1892, the rookeries were in better condition than in 1891, there being more seals, generally speaking. I noticed there were more seals on the rookeries, but did not observe of what particular class.

During the time the female seals are suckling their young they do not go to great distances from the shore to feed, but if the weather is fine and no storms are prevailing, they will go eight or nine miles from shore, but no further, while they are nursing. When the sea is high, and the weather stormy, the nursing females will only go a very short distance from the rookeries. With regard to the question as to whether a female seal feeds while suckling, I have seen a female nurse her pup early in the morning, leave the rookery for a few hours and return and again nurse the pup. This is from personal observation. During the month of June, when the pups are young, the females do not leave them for a longer time than about four hours, but later on, in July, when the pups are older, they will stay away for nine or ten hours.

I judge the distance the females go from their rookeries while nursing, by personal observations made by me watching them, with a pair of field glasses, every day during my stay at the rookeries. It was my duty to give to the officials all the information I could gather in connection with the rookeries and the seals, and it was during my daily observations that I watched the seals leave the rookeries and return. There was no danger of my mistaking females.

During the year 1892, I think, there were more dead pups than in 1891 or 1893, I did not count the dead pups, but there appeared to be more. I attribute the death of these pups to storms and surf, and many of them were crushed by the bulls. In the autumn, during stormy weather, many of the pups are killed by the waves.

From the observations I have made, my opinion is that a female seal will suckle her young three or four weeks before weaning. I cannot say how soon after the birth of her pup a female will resort to the water for food, and would not like to give an opinion on this point.

In the event of a female losing her pup at sea, she would come to the rookery, because I have seen barren females on the rookery which had not pups to look after. If she lost her pup on the rookery, she would remain there for service by the bull.

At all times, during their stay upon the rookeries, females can be found with a show of milk. I have seen females killed in October, for scientific purposes, and there has been in them a decided show of milk.

I cannot say much about the migration routes of the seals or their winter habitat, but they come from the south-east and return in that direction.

The seals arrive at the islands in the following order:—

*In 1892.—First. The bulls, the first arriving on the 1st May, and from that forward coming gradually until 1st July, and that is the reason that a few bulls will be found later in the fall on the rookeries.

do Second. The first females arrived on the 20th May, and from that forward they kept coming until 15th July, by which time all the females were on the rookeries.

do Third. The holluschickie arrived about the same time as the females, but continued coming the whole time until about 15th of August.

Departure, 1892.—The bulls left first, but cannot say actual time of leaving. As the seals come, they leave; gradually. Except the bulls, which had nearly all gone by that time, they began to leave about 1st October, and had all left the islands on the 12th November.

As to the question whether female seals ever land on the islands from the time they leave them as pups, until they return to the rookeries to give birth to their first pup, I have seen young females (yearlings) every year on the rookeries. Last year, 1892, I made a "drive," thinking to take about 2,600 skins, but I discovered there were over 1,000 young females mixed with the holluschickie.

Last year, 1892, I observed three bulls on North Rookery which were very different in appearance from the bulls usually resorting to these islands. They had long manes on the back of their necks, which do not occur on the bulls of Komandorsky Islands. These bulls caused considerable discussion among the natives, one of whom had come to the Komandorsky Islands from St. Paul, Pribylov: his name was Efim Snegiroff. He informed the natives that these bulls were from St. Paul Island, as they were the same as he had seen there. Last year I noticed two holluschickie which were very different from the ones here, the hair being quite black.

I cannot say how many years a female will continue to bear young, nor how long a male will render efficient service on the rookeries.

I have never noticed any adult females which were barren, nor any old bulls which were not able for rookery service.

In 1891 I found in a drive a seal which was a hermaphrodite.

On the whole, I believe the rookeries to be in a better condition than for the last three years.

The agreement between the Russian and British Governments providing a 30-mile zone is a sufficient protection to the breeding seals, after they have got to the rookeries, but early in the spring, during the migration of the seals to the islands, the presence of the sealing schooners interferes with their passage to the islands.

I have not been on Copper Island since 1888, and cannot give any information as to that island.

ALEXANDER SELIVANOFF.

APPENDIX No. 4.

STATEMENT OF ALEXEY BADAEFF, SEAL "DRIVER," BEHRING ISLAND.

I was born on Behring Island, and am now 45 years of age and am engaged in "driving" seals during the sealing season.

There are more seals on North Rookery this year than last. The increase is noticeable generally speaking, including all classes of seals. In 1891, there were not so many seals as in 1892, and in 1893 (this year) there are more seals than in 1892.

*Russian dates.

At the time they are suckling their young, the female seals do not go far from the rookeries, not further than five miles from shore. They go this distance to feed. They can find food enough that distance from shore. There were more dead pups on the rookery in 1892 than this year or than in 1891. I should say that in 1892 there were about 300 dead pups; this year not so many. In 1892 the pups, in my opinion, were killed by the bulls crushing them, and by the surf, during storms. I know of no other cause of death, except that a few may be born dead. From personal observation I have seen pups suckling the whole time that the seals are on the rookeries, and I believe that the females nurse their young four months. I have seen females nursing their pups in the water. I have never seen a bull serve a female in the water. I cannot say how soon after giving birth to her pup a female will go into the water. The females do feed while nursing, but if the weather is warm, they will go into the water without feeding, but remain close to the shore.

I cannot say what a female would do in case of losing her young, either at sea or on the rookery.

The seals arrive at the rookeries as follows, generally speaking from year to year, according to weather. The bulls come first, arriving about 20th April; the females in the first part of May, say first May. Holluschickie come about the same time as the females. The bulls begin to leave first, but I cannot say exactly the time. The bulk of the seals leave between 1st October and 20th November, none being on the rookeries after the latter date.

To the question as to whether females land on the islands, from the time they leave them as pups, until they return to the rookeries to give birth to their first pup, I may say that I have seen some young females mixed in a drive of holluschickie.

I cannot say how many years a female will bear young.

I cannot say how long a bull will render efficient service on the rookeries, but I have seen a very old bull serving a female.

I do not know of the existence of barren females on the rookeries. There may be or there may not be.

There are no bulls on the rookeries which do not serve the females.

I have seen on the rookeries in 1891 and 1892 a considerable number of seals which had shot wounds. But this year there are very few as compared with 1891 and 1892. I have never noticed them wounded in any other way except those which had bitten each other.

With regard to the agreement between Russia and Great Britain this year, I am of opinion that the limit is not sufficient, as the holluschickie go more than 30 miles from land. They take these excursions not necessarily for food as they could get this within 30 miles from land, but for exercise or for a change.

ALEXEY BADAEFF.

APPENDIX No. 5.

STATEMENT BY CAPT. D. A. GRUNBERG, OF THE RUSSIAN SEAL-SKIN COMPANY'S SCHOONER "LEON," AT PETROPAULOVSKI, 18TH AUGUST, 1893.

Q. How many years have you been engaged in sealing?—Since 1877, in the employ of Hutchinson, Kohl, Philippens & Company, from 1877 up to termination of lease in 1891; since that date I have been employed by the Russian Seal-skin Company, continuously.

Q. Under the Alaska Commercial Company, at what islands were you employed?—At Komandorsky Islands and Robben Island, under both companies.

Q. How were you employed?—In carrying supplies to the islands and sealers, and collecting skins taken.

Q. Have you always been on the "Leon"?—No, this is only my second year in that vessel, previously I was in charge of the steamer "Alexander."

Q. How is the "Alexander" now engaged?—She is, I understand, now lying off Copper Island, receiving skins from the sealing schooners. I cannot say in whose employ she is, but it is generally thought that she is in the employ of Mr. Liebes, of San Francisco. She was fitted out by Lawrentzeen, of San Francisco. She left San Francisco under the Hawaiian flag.

Q. When did you leave Robben Island?—6th August.

Q. Had the operations of the Lessees ceased when you left?—Yes; the killing operations ceased there on the 2nd of August, because there was no profit in staying any longer.

Q. How many skins were taken there this year?—1,532.

Q. How does this compare with the catch of last year?—There were none taken last year because it was considered unprofitable to send sealers there.

Q. How was this judged?—By the catch of the year before (1891).

Q. What was the catch that year?—I do not know exactly, but it was less than this year.

Q. How do you account for the decrease in seals there?—I think it is due to the operations principally of pelagic sealers, as I have picked from the carcasses, buckshot and slugs when handling the seals killed by the natives on the island.

Q. Is there, generally speaking, an appreciable decrease in the number of seals on Robben Island, as compared with previous years?—Yes.

Q. How long since you have observed this decrease?—About 1885 and 1886.

Q. Previous to those years what was the average take?—About 4,000 skins.

Q. In your opinion what has been the effect of the protective area established this year between Russia and Great Britain, on the rookeries there?—I believe it has afforded a moral protection to the seals. I neither heard of nor saw any pelagic sealers in the vicinity of the island, within the prohibited area, while I was there, but my experience has been that this class of sealers generally reach there about the latter part of August and month of September.

Q. Do female seals while suckling regularly go to great distances from the breeding islands?—I do not think they do while suckling.

Q. Then the female seals killed at sea are not mothers suckling their young?—No, they are not. This might occur within a mile or two from shore while in that condition, because at this time the mothers never go any further to sea.

Q. Do young pups perish on the islands?—Yes, a considerable number.

Q. To what do you attribute this mortality?—Some are drowned in the surf while yet young and learning to swim, a small portion are smothered by the breeding animals, others are crushed by bulls.

Q. When do the females go to greater distances from the island, and for what purpose?—The females go to greater distances off shore, after the pups are weaned. I have also noticed seals generally, irrespective of sex, further off shore during the month of August than during the two months previous. I know that some of these must be females because the breeding places are thinned off.

Q. Can the females get food, while nursing, without going far from shore?—I believe they can, for they do not go beyond one or two miles from the islands at that time.

Q. Does this answer apply equally to the Komandorsky Islands?—Yes.

Q. How long are the pups necessarily suckled by the mother before weaning?—I cannot answer that.

Q. What is the earliest date at which the female may resort to sea after giving birth?—I cannot say, and would not care to give an opinion.

Q. Have you any knowledge of the existence of "feeding banks" in the vicinity of the Komandorsky Islands and Robben Island?—I have no personal knowledge of any such banks, but I have heard that such exist to the S. W. of Behring Island, about 80 or 85 miles off, and to the south of Copper Island, but I have not heard how far off that island.

Q. Do the seals visit these banks for food?—After the 15th August I have noticed seals south-west of Behring Island, as far as 80 miles off the island, I presume looking for food. I could not say whether they were males or females; but if females, at this time the young would have been weaned, and able to take care of themselves.

Q. Have you ever known of females losing their young at sea or on the islands, and found in milk at great distances from the breeding islands?—Miscarriages may happen with seals as with other animals, but I am unable to answer the question.

Q. If a female lost her pup on the island would she remain there?—Her natural instinct would keep her there.

Q. Would this be so if she lost her pup at sea?—I think so.

Q. What do you know of the actual migration routes of the fur seals of the Asiatic side of the Pacific, in going to and returning from the Komandorsky Islands?—In coming to the islands everything indicates that they come from the southward and south-westward. In going from the islands, I cannot answer. The reason for stating that they come from the south or south-west is, that they first land on the south-west part of Copper Island, following up that island, landing as they go, on the several rookeries, thence keeping the same direction along the shore to Behring Island, landing on the rookeries there.

Q. What is their winter habitat in the vicinity of the Japanese coasts?—I do not know.

Q. After leaving the islands as pups, do the female seals ever land on the islands before they return to give birth to their first pup?—They do: why I am positive of this, is that young immature females are often mixed up in a drive of killable males.

Q. In years of scarcity or abundance of seals on the Pribyloff group are the Komandorsky Islands similarly affected or otherwise?—I am unable to answer this.

Q. Do you believe that practices on the Pribyloff Islands or Robben Reef have any effect upon Komandorsky Islands?—If any effect on Komandorsky Islands is produced, it would be from the practices on Robben Island. I do not believe that practices on the Pribyloff Islands could affect Komandorsky Islands.

Q. How many years will a female seal continue to bear young?—I cannot answer that.

Q. How many years will a male seal render efficient service on the rookeries?—I cannot say.

This statement has been read over by me and is a correct transcript of the questions asked and answers given at Petropaulovski, 18th August, 1893.

D. A. GRUNBERG.

Witness: JAMES MAXWELL,
Paymaster, H. B. M. S. "Archer."

DECLARATIONS

Of some of the British Pelagic Sealers who participated in the sealing industry on the Japan coast and in the waters surrounding the Komandorsky Islands, 1893.*

APPENDIX No. 6.

DECLARATION OF CHARLES LEBLANC, MASTER OF THE SEALING SCHOONER "SADIE TURPEL," 1893.

Port of Victoria.
British Columbia.

I, Charles Leblanc, of the City of Victoria, in the Province of British Columbia and Dominion of Canada, do solemnly declare that:—

I have been five years in the sealing business, during which time I have sealed along the coast, in Behring Sea, when it was open, and around Komandorsky Islands. The first year I went as a boat steerer; after that up to 1892, I was mate and hunter; this year, 1893, I went to the Japan coast and around Komandorsky Islands as master of the schooner "Sadie Turpel."

I sailed from Victoria on the 25th day of January, and went direct to Yokohama, arriving there on the 14th day of April, and left there on the 15th for the sealing grounds.

The first seals I took on the Japan coast, I got on the 19th day of April, in latitude 39° 22′ N., longitude 143° 12′ E., and the last seal on that coast, on the 4th day of July, in latitude 44° 58′ N., longitude 149° 25′ E., and my positions during this time ranged between 39° and 45° north latitude and 141° and 149° east longitude.

The first few catches were mostly all composed of young males, but after that they were pretty well mixed. Taken on the whole, my catch on the Japan coast was about half male and half female seals. About the first week in June the females were the heaviest in pup. I got on that coast twelve or fifteen barren cows. These cows were old enough to bear young, but there was no sign whatever of either pup or milk. The bulk of my catch was of full sized seals; I got but few grey pups.

During the latter half of June, between Yesso and Sikotan Islands, I got between twenty and thirty females in milk, from thirty to forty miles off shore.

The stomachs of seals killed along the Japan coast, contained considerable squid and small fish.

I first began sealing off the Komandorsky Islands on the 21st day of July, in latitude 53° 40′ N., longitude 166° 40′ E., and I continued sealing both north and south of the islands, until the first day of September, my position on that day being 53° 10′ north latitude, 168° 24′ east longitude. I sealed both north and south of the islands, my positions ranging between 53° and 56° 37′ north latitude, and 164° and 168° 30′ east longitude.

The catch off the Komandorsky Islands was composed of two-thirds females and one-third males. Of the females taken very few had a full flow of milk. After the 8th of August, I went north of the islands, and the females taken there were drying up, in different stages. Towards the end of August the milk had completely dried up.

* R. N. Crowell, master schooner "Brenda" in Asiatic waters 1892 (App. No. 17).
John McLeod, master schooner "Pioneer" American side 1893 (App. No. 21).

The stomachs of the seals contained considerable squid and small fish.

About the 20th August, I ran up as far as about 170 miles N.N.E. of Behring Island; saw quite a number of big cows; I got six (6). The stomachs contained fish-food and squid. When we see a bunch of big cows like those, we always regard it as an indication that plenty of seals are in the vicinity.

I left on the second day of September for Victoria, and arrived in this port on the 24th day of that month. On my way over, I got two male seals about two hundred miles south of the Aleutian Islands.

I know of no "banks" to the southward of Komandorsky Islands; but there are plenty of surface fish all the way as far out as two hundred miles: squid and small fish of different kinds.

So far as the migration route of the seals to the islands is concerned, I can only say that I first met them on the Japan coast the 19th of April, in latitude 39° 22′ N., longitude 143° 12′ E., and I followed them along the coast until 4th July, in latitude 44° 58′ N., longitude 149° 25′ E., my average distance from shore being about (30) thirty miles. I lost the herd about fifty miles east of Sikotan.

I can tell a female from a male seal in the water. The females are finer in the head and neck.

And I make this solemn declaration conscientiously believing the same to be true, and by virtue of the Act respecting extra-judicial oaths.

Declared before me, at Victoria, in the Province of British Columbia, this ninth day of November, 1893.
A. R. MILNE.

CHAS. LEBLANC,
Master of schooner "Sadie Turpel."

[Seal.] *Collector of Customs.*

APPENDIX No. 7.

DECLARATION OF WILLIAM SHEILDS, MASTER OF THE SEALING SCHOONER "VERA" 1893.

Port of Victoria, }
British Columbia. }

I, William Sheilds, of the City of Victoria, in the Province of British Columbia, Dominion of Canada, do solemnly declare, that:

I have been eight years in the sealing business, seven years a seal hunter, and this year as master of the schooner "Vera." I also acted as a hunter this year, killing four hundred and seventy seals, all of which I skinned myself, and, therefore, had good opportunities of observing their condition.

I have sealed along the coast and in Behring Sea. Last year (1892) was my first year to the waters around Komandorsky Islands; and this year (1893) was my first year on the Japan Coast. From there I worked up to the waters around Komandorsky Islands.

I cleared from Victoria on the 25th day of January, and sailed direct for Yokohama, arriving at that port on the 19th day of March. I left Yokohama on the 27th day of March, and first took seals on the 29th of that month, in latitude 34° 46′ N., longitude 140° 3′ E. The last seals I took on the Japan Coast were got on the 14th day of July, twenty miles off Staten Island.

Between these dates, my positions ranged from 34° 46′ north latitude to 44° 53′ north latitude, and from 140° to 148° 18′ east longitude. Some days the fog was so thick that I could get no observations.

The seals taken along the Japan Coast, in March and April, were of all classes, mixed.

During May, I would find a bunch all males, and a little further on a bunch all females. The females were in pup. Along the coast, mixed up among the male seals, I took quite a number of barren cows. Barren cows and young males generally go together, and when you get into a bunch of these, all the females taken are barren. They are adult females, but without pup or any show of milk whatever. There is no particular time of the year that this class of seal is taken in greatest numbers.

For two or three days during the first week in June, I noticed a lot of cows travelling along the coast to the northward. This was between 39° and 41° north latitude, and 144° and 146° east longitude. They were hard to get, as they did not stop for anything, but kept right on their course.

The bulk of the females heavy with pup were taken during the first week in June, but I took a few females in pup up to the end of June. The majority of the seals taken during the last week in June and the first twelve days in July, were young males with some barren cows, and a few cows in full milk, but very few of the latter. This was off Staten Island—one of the Kuriles. Of the early catch along the Japan Coast, both males and females, the stomachs were comparatively empty, but later on they contained considerable fish food.

On the 14th day of July, I sailed direct for the waters around Copper Island, arriving there on the 21st. I saw several seals on the way up. The first seals taken in this vicinity were secured on the 23rd day of July, in latitude 53° 37′ N., longitude 167° 20′ east, and the last seals got there on the 5th day of August in latitude 52° 57′ N., longitude 168° 9′ E., these positions being about my range off Copper Island.

The seals taken off Copper Island were mixed, male and female, perhaps more females than males. About half the females had a pretty free flow of milk. The other half appeared to be in different stages of drying up.

I noticed that the stomachs of the seals taken in this vicinity contained very little show of food.

At noon on the fifth day of August, I sailed for Victoria, arriving at this port on the 24th of the same month.

Last year, I sounded around Copper Island with two hundred fathoms of line, but was unable to get soundings. I have never heard of anyone who has succeeded, and I know of no banks there. I noticed a good many squid around the island, about thirty miles off, cut up probably by feeding seals. I have seen seals eating squid; and in the Behring Sea, I have seen them eating cod.

All I can say about the migration routes of seals to the Komandorsky Islands is, that I met them on the 29th March, off the coast northward of Yokohama in latitude 34° 40′ N., longitude 140° 3′ E., and I found them all along the coast to Staten Island, one of the Kuriles, ranging, say, between (35) thirty-five and (45) forty-five miles off shore. I lost the herd off the northern part of Staten Island.

I can tell from the discolouration of the bellies and the condition of the flippers, if seals have been for any length of time on the land.

Last year, 1892, I was off Copper Island as a hunter, on board the schooner "E. B. Marvin," my boat was seized off the shore by the Governor of the Islands. That morning we left the schooner at 4 a.m., to hunt seals. There was a thick fog prevailing. I stood in towards the direction of the island until 10 o'clock, a.m., shooting seals on the way. Boats, when seal hunting, go about three and a half miles an hour. I had twelve skins and one seal in the boat, and was standing up shooting at a *"bull" when I sighted two boats, one on each bow. They proved to be from Copper Island in charge of the Governor. At this time I had no idea that I was anywhere near shore, as the fog was thick, and I did not know the position of the ship when I left her, being only a hunter. When I asked the Governor if I was near to the island he informed me that it was right there. I never went on the shore until taken there by the capturing boats, and all the skins I had were taken from seals shot in the water, when I had no idea that I was within the limit. The club in the boat was only such as is carried by all sealing boats, no matter how far from shore, to despatch wounded seals which may come to, and often take charge of the boat. It was not intended for use on the land, nor had it been used there. All seals that are shot and not instantly killed, are clubbed in the boat to ensure the safety of the crew. This accounts for the heads of the seals bearing marks, which marks are no indication whatever of the seals having been clubbed on land.

And I make this solemn declaration, conscientiously believing the same to be true, and by virtue of the Act respecting extra-judicial oaths.

W. SHEILDS.

Declared before me, at Victoria, in the Province of British Columbia, this tenth day of November, 1893.

[Seal.] A. R. MILNE,

Collector of Customs.

* He means a male seal, not necessarily a breeding "bull."

APPENDIX No. 8.

Declaration of Wentworth E. Baker, master of the sealing schooner "Oscar and Hattie," 1893.

Port of Victoria, }
British Columbia. }

I, Wentworth E. Baker, of the City of Victoria, in the Province of British Columbia, and Dominion of Canada, do solemnly declare that:

I have been in the sealing business for the past six years. During 1888, 1889, and 1890, I sealed along the coast and in the waters of Behring sea, as master of the schooner "Viva." In 1891, I sealed along the coast, but did not enter Behring sea being warned out. That year I was also master of the schooner "Viva." In 1892 as master of the schooner "C. H. Tupper," I sealed along the coast and around Copper and Behring Islands. This year, 1893, as master of the schooner "Oscar and Hattie," I sealed in the same waters.

In 1893, I sailed on the twelfth day of March, and followed the coast from Cape Flattery up to Kodiak, reaching there about the 5th day of June. Altogether between these points, I took eleven hundred and sixty-two seals, between twenty and one hundred miles off shore. Of this catch, I do not believe we had three hundred female seals, the catch being mostly males. I seemed to miss the herd of females; and of the few females we took very few were in pup, the others being young virgin cows mixed with the young males. We also got a few barren cows. These cows were about four year olds and full grown, with no sign of pup or milk. I noticed these particularly off Fairweather Grounds.

With regard to the females in pup, this year I took particular notice. We were all looking for them to secure the skins of the unborn pups; some of us having promised them to friends at home, and we only succeeded in getting three. Early in the season we got a few females in pup, but the pups were not sufficiently far advanced to have hair.

Off Mount Fairweather we got a few old bulls. This was about the latter part of April.

I left vicinity of Kodiak Island on the 13th June, for waters around the Komandorsky Islands, reaching there 28th June, Copper Island bearing N. W. 65 miles distant.

I first lowered for seals 2nd or 3rd July, and got a few skins, in about 53° N. latitude and 169° E. longitude. From this position, I sealed sometimes to the southward and working west until in longitude 165° up to about the middle of July, taking about four hundred seals. Then I sailed to the northward of Behring Island and sealed from sixty to eighty miles off the island. I remained there until the 1st day of September, and took north of the islands about six hundred seals.

The seals taken south of the islands were mostly male seals. I took here very few cows, but those cows had a considerable flow of milk. This was early in July.

The seals taken to the north of the islands were mixed males and females, about a third males.

The females in that vicinity were drying up, the milk was getting hard and distributing among the fat. Later on in August there was hardly any sign of milk noticeable. I was one day one hundred and ten miles to the north, and the further off shore I got the females I took showed least sign of milk and appeared to remain off the islands.

The seals taken north of the islands appeared to feed more upon salmon and small fish, than upon squid, and during my stay in this vicinity the waters were alive with salmon.

I do not know of any "banks" around the Komandorsky Islands, where soundings can be obtained. I have tried for soundings three seasons, but have never been able to obtain any with two hundred fathoms of fishing line, and one hundred and twenty fathoms of sounding line. There is in certain places a discolouration of the water which has the appearance of soundings, but no soundings can be obtained. This probably accounts for the reported "banks."

And I make this solemn declaration conscientiously believing the same to be true, and by virtue of the Act respecting extra-judicial oaths.

Declared before me, at the City of Victoria, in the Province of British Columbia, this ninth day of November, 1893. } W. E. BAKER.

[Seal.] A. R. Milne,

Collector of Customs.

APPENDIX No. 9.

Declaration of Melville Cutler, master of the sealing schooner "Agnes MacDonald," 1893.

Port of Victoria, }
British Columbia. }

I, Melville Cutler, of the City of Victoria, in the Province of British Columbia, Dominion of Canada, do solemnly declare that:—

This is the third season that I have been in the sealing business. The first year, 1891, I sailed as master of the "Carmolite" to the North Pacific Ocean and Behring Sea; but was warned out of the latter place. I got 2,380 skins.

In 1892, I sailed as master of the "Agnes Macdonald" bringing her around Cape Horn. That year I sealed along the northwest coast, and around Copper Island, on the Russian side of the line.

During the present year I was master of the schooner "Agnes Macdonald." I cleared from Victoria on the 24th January, and sailed direct to Yokohama. I arrived in Yokohama on the 18th March, and left that port on the 28th March, sealing north. I first took seals on the 2nd day of April off Kinganson, Island of Nipon. I sealed along the Japan coast from that date up to the 23rd June, when I took my last seal on that coast. My positions ranging between latitude 35° and 43° N. longitude: 142° and 147° E.

I reached Hakodate on the 27th June.

I left Hakodate on the 8th July, and anchored a few days off the Heads. I arrived in the vicinity of Copper Island on the 20th July, and took my first seal in these waters on the 25th July and the last on the 5th September, my positions ranging between 52° and 54° north latitude and 166° and 168° east longitude.

My catch along the Japan coast was made up of young male seals, cows in pup, and a few barren cows, and the majority of the seals I got were taken at distances ranging from 180 to 250 miles off Nipon Island. I took some off Yesso Island.

I personally superintend the salting of the skins and the skinning of the seals that are brought on board the vessel—some are skinned in the boats. This year I observed two barren cows on the Japan coast; that is to say cows, that had not bred, not being in pup and having no sign whatever of milk. They were adults.

Of the seals taken on the Russian side about two-thirds were females, the remainder being young bulls.

The females taken between 25th July and 5th September, had some show of milk, but in no instance did I observe a full flow; all having the appearance of various stages of drying up. Very little show of milk in those last killed. I paid particular attention to this, as we remained in the vicinity for five days before getting any seals, and when they began to arrive, I mentioned to some of my men that we had prospects of a good catch, as the females were drying up, and that as their pups must have been weaned, we might expect them to come off the islands.

I know of no "banks" to the southward of Komandorsky Islands, where any soundings can be got, but there are lots of surface fish to be found 50 or 60 miles to the southward. I have seen lots of dead squid which had been bitten and killed by seals. I also observed many salmon jumping out of the water, during my stay in the Russian vicinity this year from 25th July to 5th September. In fact I was among fish all the time.

When off Copper Island this year I examined the stomachs of several seals, both male and female, to observe what they fed upon. I found in the stomachs of both, the remains of squid and small fish, which I took to be smelt or capelin. This was between 25th July and 5th September. In previous years, I have observed the same thing on the American side.

Regarding the migration route of the seals to the islands, the first I saw of them this year was about 200 miles north of Yokohama from 180 to 200 miles off shore. This was the first week in April. I got them all along the Nipon coast, and a few along the Yesso coast about the same distance off. Off the north part of Yesso I lost the Japan herd, and did not again see seals until off the Komandorsky Islands.

I can tell if a seal has been on the rookeries or hauling grounds, as their flippers are worn and their bellies are discoloured. I got young males off Copper Island this year, which had no appearance of having been on the islands.

And I make this solemn declaration conscientiously believing the same to be true, and by virtue of the Act respecting extra-judicial oaths.

Declared before me at Victoria, in the province of British Columbia, this ninth day of November, 1893. } M. F. CUTLER.

[Seal.] A. R. Milne,
Collector of Customs.

APPENDIX No. 10.

DECLARATION OF W. H. WHITELY, MASTER OF THE SEALING SCHOONER "MERMAID," 1893.

Port of Victoria,
British Columbia.

I, W. H. Whitely, of the City of Victoria, in the Province of British Columbia, Dominion of Canada, do solemnly declare that :—

I have been three years in the fur seal business. In 1891, as master of the schooner "Labrador," I sealed along the coast and in Behring Sea, but was warned out of the latter place. In 1892, I sealed along the coast and off Copper Island, as master of the schooner "Mermaid," and in 1893, as master of the same vessel, I went to the Japan coast and to the waters around Komandorsky Islands.

I cleared from the port of Victoria on the 28th January, and shaped my course direct for Yokohama. I saw plenty of seals off Cape Flattery on the 29th January, but the weather was very heavy and I did not lower my boats.

On the 25th day of March, I arrived off Yokohama, latitude 36° 10′ N., longitude 145° 00′ E. Saw thousands of seals (200) two hundred miles off As the day wore on the wind moderated, and I lowered my boats for sealing, taking my first seals (55) in the above position. On the first day of April, I went in to Yokohama, and left there again on the 5th. I next lowered my boats for sealing on the tenth day of April, in latitude 38° N., longitude 145° E. On the following day the vessel ran into a whale, receiving very severe damage, and on the 12th, the next day, I went into Yokohama for repairs, remaining there until the fourth day of May. I consider that I lost about one thousand seal-skins by this accident.

After repairing damages, I left Yokohama on the 4th day of May, and on the 8th again lowered my boats for seals. From this date up to the 19th day of June, I sealed along the Japan coast, with success, between 38° and 42° north latitude, and 143° and 146° east longitude.

My first catches (before I had to put in to Yokohama for repairs), between 25th March and 12th April, were principally of young males, with some cows in pup. Later on in May, I got a good many cows heavy in pup ; then in June, half the catch was of males. On this coast I noticed a large number of barren cows, many more than on the American coast. They were adults with neither signs of pups nor of milk in any stage whatever.

I also got two big bulls about the end of May.

The last day upon which I sealed on the Japan coast was the 19th June. The weather was foggy and I got no positions, but this was before I reached Hakodate. On this day I got two or three females in full milk, they must have come from some rookery, or dropped their pups in the sea. We were about 50 miles off land. These were all of this class, I observed on that coast. On this day, I also got the last seals in pup.

I arrived at Hakodate on the 26th June and left there direct for the vicinity of Komandorsky Islands on the 4th day of July. From latitude 45° 10′ N., longitude 152° E., and latitude 49° 41′ N., longitude 158° E., one hundred miles off the Kuriles, I saw scattered seals. On the 20th July, I arrived in the vicinity of Behring Island, (60) sixty miles off.

The first seals I took in this vicinity were got on the 23rd day of July, in latitude 53° 50′ N., longitude 166° E ; the last seal was taken on the 4th day of September, in latitude 53° 06′ N., longitude 169° 10′ E. Between these dates my latitude ranged from 53° 00′ to 54° 03′ N., and my longitude from 166° 00′ to 169° 10′ E.

The seals taken within these bearings were mixed. Some days my hunters would get all cows, and on other days all males. On the whole, a small percentage more of females. The females taken in the month of July were in fuller milk than at any other time. Those taken during the first part of August were beginning to dry up, while those taken towards the end of August, although showing they had been in milk, showed clearly that they were drying and had dried up.

On the 5th day of September, I started for Victoria, arriving here on the 21st day of that month.

This year, about the 25th June, I noticed hundreds of seals entering the first pass into Okhotsk Sea. The schooners "Beatrice," of Vancouver, and the "Rattler," of San Francisco, went into that sea, but could not find the seals.

With respect to the migration routes to and from the Komandorsky Islands, this year I met them on the 25th March, in latitude 36° 10′ N., longitude 145° 00′ E., (200) two hundred miles off Cape Inaboye, about 60 miles north of Yokohama, and followed them to Sikotan Island, one of the first of the Kuriles ; there I lost them about the latter end of June and met them again off Komandorsky Islands.

This year, in the open ocean, on the 8th March, I caught one female seal with a pup inside. My position was latitude 35° 00′ N., longitude 170° 00′ E., about 3,000 miles from the Japan coast, and 1,200 miles south of the Komandorsky Islands. The second mate of the "City of Pekin" told me that on their winter route, in the vicinity of the above positions, they encounter large numbers of seals.

Last year, when there was no limit around Copper Island, beyond the three-mile limit, I got twenty female seals about twenty-five miles off shore, on the 9th day of July, nearly all of which had pups in them.

This year, Captain Baker, of the schooner "Oscar and Hattie," is reported to have taken about one thousand seals, one hundred miles north-east of Komandorsky Islands, on the Asiatic side of Behring Sea.

I think the herds which visit the Pribylov Islands and the Komandorsky Islands are different, but from the manner in which they distribute themselves, it is most difficult to say whether they mix or not.

I do not know of any banks to the southward of Komandorsky Islands. Last year I tried for fish about thirty (30) miles off, but could find no bottom with one hundred (100) fathoms of line. I have never heard of anyone else finding any soundings.

There is a small "bank" in latitude 53° N., longitude 170° E., seventy-five (75) miles south-west of the Attou Island. It is a very small bank. On the shoalest part there is seventy (70) fathoms of water. I saw plenty of seals there last year, but it is so small it is most difficult to keep on it. There are red cod on this bank. There are large quantities of squid around the Komandorsky Islands—everywhere—as far from shore as (100) one hundred miles. I have often found them torn to pieces by seals, and on opening the seals, both male and female during July and August, I have found the stomachs containing squid.

Off Komandorsky Islands, male and female seals are to be met with, from the middle to the end of August, in very poor and lean condition, having the appearance of being starved. When opened, the stomachs are entirely empty, although squid and salmon are abundant in the waters they were taken from. Others are fat and full of food. In 1892, when twenty or thirty miles off shore, I observed herds of seals coming from and going to the islands, early in the morning and late in the evening. On the other hand, I have seen them, both male and female, sixty miles off at all hours of the day, and asleep in the early dawn. These seals did not come off in the morning and return at night.

I can distinguish seals which have come from the islands or rookeries, by the flippers being worn.

And I make this solemn declaration, conscientiously believing the same to be true, and by virtue of the Act respecting extra-judicial oaths.

Declared before me, at Victoria, in the Province of British Columbia, this sixth day of November, 1893.

W. H. WHITELY,
Master of schooner "Mermaid."

[Seal] A. R. MILNE,
Collector of Customs.

APPENDIX No. 11.

DECLARATION J. B. BROWN, MASTER OF THE SEALING SCHOONER "WALTER P. HALL," 1893.

Port of Victoria, British Columbia.

I, John B. Brown, of the city of Victoria, in the Province of British Columbia and Dominion of Canada, do solemnly declare that:—

I have been sealing two seasons, 1892 and 1893. Both years I went to the Russian side. Last year I went right up along the Aleutian Islands, and sealed both north and south of the Komandorsky Islands.

This year I sailed from Victoria on the 13th day of January, direct to Yokohama, arriving at that port on the 25th March, and left there on the 5th April for the sealing grounds.

On the 7th day of April I first took seals on the Japan coast in latitude 36° 38′ N., longitude 144° 07′ E., and the last seal I took on that coast was got on the 29th day of June, in latitude 42° 53′ N., longitude 145° 18′ E. Between these dates my positions ranged from 36° to 43° north latitude, and 144° 00′ and 147° 00′ east longitude.

Of the catch on the Japan coast two-thirds were cows, but I might get a run of cows and some other schooner might get a run of males, that is the way they generally go. Towards the end of the season, I got on the Japan coast a large number of small male seals, mixed in with large males and cows. About the end of June I noticed a few females in full flow of milk. This was off Yesso, and these seals had either pupped on the shore or dropped their young at sea. The last cows in pup were taken about the 23rd of June.

The seals taken along the Japan coast were rather lank, the stomachs showing very little traces of food, but what there was, was principally small fish and squid.

On the 1st day of July, I sailed for the waters around Komandorsky Islands, and reached there on the 17th. The first seals I took in this vicinity were got on the 23rd day of July, in latitude 53° 15′ N, longitude 168° 41′ E., and the last seals on the 16th day of September, in latitude 53° 31′ N., and longitude 168° 44′ E. During my stay around the islands my positions ranged between 52° 28′ and 53° 39′ north latitude, and 167° 15′ 170° 13′ east longitude.

Taken all through, the seals I got off the Komandorsky Islands were about half male and half female. I could not say as to the stage of milk, but I did not notice any particularly free flow of milk. Very few of the seals were fat, most of them being poor and thin.

On the 20th day of September, in latitude 51° 10′ N., 175° 53′ E, due south of Attou Island one hundred (100) miles, I took one female seal.

I am not aware of any banks around the Komandorsky Islands, neither do I know of any sealers who have sounded there and got bottom. There is an abundance of squid and salmon as far off as 150 miles.

Regarding the migration routes of seals, I met them the first week in April in 36° 38′ north latitude, 144° 07′ east longitude, and followed them along the Japan coast until the 29th day of June, in 42° 53′ north latitude, 145° 18′ east longitude.

Then I got off Akiski the seals began to travel north and from that date on the Japan coast all I took were "travellers."

Captain Larrabee, of the sailing ship (could not recall name), told me that when sailing from Hakodate to New York, on the 14th day of September, 1892, in latitude 43° 30′ N., longitude 162° 30′ E., he passed a large number of seals, seven hundred and twenty (720) miles off shore, and the year before, 1891, about seventy (70) or eighty (80) miles northward of the above positions, between the 12th and 15th of August, he sailed through large bodies of seals.

And I make this solemn declaration, conscientiously believing the same to be true, and by virtue of the Act respecting extra-judicial oaths.

J. B. BROWN.

Declared before me, at Victoria, in the Province of British Columbia, this eighth day of November, 1893.

[Seal.] A. R. MILNE,

Collector of Customs.

APPENDIX No. 12.

DECLARATION OF WILLIAM COX, MASTER OF THE SEALING SCHOONER "SAPPHIRE," 1893.

Port of Victoria, British Columbia.

I, William Cox, of the City of Victoria, in the Province of British Columbia, Dominion of Canada, do solemnly declare that:—

I have been engaged in sealing since 1889, as master of the schooner "Sapphire," sailing from the Port of Victoria, British Columbia. This year (1893) I cleared from Victoria, on the 28th day of January, and I worked along the American coast passing around the Island of Attou and sealed from 65 to 100 miles off shore around Copper island to the south. The nearest I went to the island this year was 65 miles, and then only on two occasions, my usual position being from 80 miles to 100 miles from land. The greatest number of seals were taken about 80 miles south of the island. Never having sealed on the Japan coast, I cannot speak as to the migration routes of the seals to and from the islands, nor can I form any opinion as to their winter habitat.

Every year for the last four years vessels have reported that during July and August large bodies of seals were seen 600 miles south of Copper Island. Captain Townsend of the trading barque "George" and Captain Fullmore, of the iron sailing ship, "Fingal," as well as Captain Howard McKenzie of the "Ernscliffe," reported this. The Captain of the "George" saw them four years ago, both the others a year ago; and this year I have also heard the same reports.

Captain Tanner of the "Albatross," who had previously been Captain of one of the mail steamers, told me that he had seen numbers of seals in this same position.

The Captains of the sailing ships above named, told me that they had been three days sailing through the seals under a light breeze.

There are no "banks" where sealers have ever been able to find bottom, any place to the southward of Copper Island; but some sealers have reported a small "bank" S. W. of Attou Island 75 miles, although they have never found bottom, only judging from the colour of the water.

Of the cows that are taken with a show of milk, some are scratched and marked. This may be caused by the young bulls serving the females at sea. These young males are not allowed on the rookeries. I have myself seen several instances of copulation in the water. There can be no doubt that it occurs.

I took some females in milk off Copper Island but am unable to say whether they were in the actual stage of nursing or whether the milk had begun to dry up.

The seals taken by my vessel on the Russian side this year were nearly all full of squid; but on the American side, I found the stomachs of those I opened to be empty, except a few pebbles in one, and one sealing shot in another.

Passing along to the southward of the Aleutian Chain this year, about the 1st July, I saw seals 120 miles south of Unimak Pass, and ranging along the chain from that distance to 80 miles south of Agattu Island (Agattu lies south of the western point of Attou Island on the eastern extremity of the Aleutian Islands). On the 8th and 9th of July, between the Rat Islands and Agattu, 80 miles oceanward, the seals were just as plentiful as I ever saw them in Behring Sea. One day at this place, I got 2 with young unborn, and 1 with milk. I got in all 20 seals, but the wind was high and the water rough, which prevented me from taking advantage of their presence.

I am of opinion that the cessation of the killing operations by the lessees on the Pribylov Islands, under the *modus vivendi*, has greatly increased the number of bachelors, and that these bachelors have, by worrying the females with pup driven them (on the American side) to some off-shore route. In no other way can I account for the absence of females on the coast this year; ninety per cent (90 per cent) of our catch being males, and the percentage of males on the coast, has been getting larger since 1891. Captain Tanner also expressed this opinion to me.

During the month of may, this year, I saw, on the Fairweather Grounds—extending from Cape Fairweather to Middleton Island—about 60 miles off shore, three females with pups swimming alongside; the pups apparently being about 2 or 3 weeks old. These seals had never reached the Pribylov Islands.

In Behring Sea, I have got lots of dry cows in July and August. These were barren cows.

There are many seals which never go on the breeding islands, because they can be seen off the west end of Vancouver Island, all the year round. I got one seal about 400 miles W.S.W. of Cape Flattery in September, on my way home this year.

I have seen pups taken from the mothers, swim long distances when put in the water, and they can be kept alive on the schooners for weeks.

I have once in a while noticed by the worn flippers, that certain seals had been on the land, but I would not consider this a certain proof that they had or had not been on the rookeries.

There are more seals on the coast than there were when I first began sealing, and they seem to be getting more plentiful each year.

The last year I was in Behring Sea (1891) the seals were more plentiful than I ever heard tell of them being. And I make this solemn declaration, conscientiously believing the same to be true, and by virtue of the Act respecting extra-judicial oaths.

WILLIAM COX.

Declared before me, at Victoria, Province of British Columbia, this second day of November, 1893.

[Seal.]

A. R. MILNE,

Collector of Customs.

APPENDIX No. 13.

DECLARATION OF GEORGE HEATER, MASTER OF THE SEALING SCHOONER "AINOKO," 1893.

Port of Victoria, }
British Columbia. }

I, George Heater, of the City of Victoria, in the Province of British Columbia, Dominion of of Canada, do solemnly declare that:—

I began fur sealing on the Pacific Coast four years ago. Previously, for ten years, I had hunted hair seals in Newfoundland waters. My first voyage after fur seals was in the schooner "Sapphire," as boat steerer. This was in 1890. In 1891, I went as master of the "Rosie Olsen"; in 1892 as master of the schooner "Ainoko"; and this year (1893) I also sailed as master of the same vessel. This was my first year on the Asiatic side. Hitherto, I had confined my operations to the North American side of Behring Sea, and to the north-west coast. This year I saw more seals than any year since I began sealing on this continent, and if I had not gone to the vicinity of Copper Island, I believe I should have got a much larger catch. I took about 1,390 skins.

Fully two-thirds of my total catch this year were males. The females appear to be changing their route, keeping further off shore. Because the first week in May off Middleton Island, I experienced rough weather and went off shore further than usual—about 100 miles off—I saw quite a large number of cows. One or two were shot from the vessel I can tell a cow from a male in the water quite readily; the head is finer and the neck is more graceful. Last year I also noticed more males than usual on the North American side of the line of demarcation. I observe the skinning operations on board the ship, and the only female seal we took this year that I could positively state was nursing, was one got off Shumagin Island —off Sand Point—on the 13th June. When she was opened the milk flowed freely over the deck, and there could be no doubt that she was in full milk. This seal must have dropped her pup at sea, or on Shumagin Island.

Out of (46) forty-six seals taken off Copper Island, there were but four (4) females; they all had a show of milk, but were drying up, the milk being clotted and in small quantity. This was between the 12th and 16th July.

The flow of milk from a suckling female is so great, that it cannot but be noticed by all present during the skinning of the seal. I have observed this as well in the case of hair seals, on the Atlantic coast in Newfoundland waters.

I did not take many females in pup this year—fewer than last year—and those I got in that condition were taken in the neighbourhood of Middleton Island.

I do not know of any "banks" around Copper Island, but the most of the seals I got in that vicinity were taken about fifty (50) miles off shore.

I have never sealed on the Japan coast, and could not express an opinion, based on personal knowledge, of the migration routes of seals to and from the Komandorsky Islands, or of their winter habitat, but the sealers tell me they work up the Japan coast at various distances off shore along Nipon Island.

I can easily tell whether seals have come from the breeding or hauling grounds:—

1. The long hair on the bellies is worn, and is also discoloured by the kelp and the slime of the rocks;

2. The edges of the flippers are worn and ragged, from contact with the stones and sand.

I have never seen fur seals copulate in the water, but I have seen hair seals do so, and I believe the fur seals can do the same as their habits are somewhat similar.

A pup cut from the mother will swim, and I have seen them follow the schooner for an hour.

The Indians got cow seals off Hesquiat on the coast of Vancouver Island, during the last week in May of the present year, but I cannot now state as to their condition.

And I make this solemn declaration, conscientiously believing the same to be true, and by virtue of the Act respecting extra-judicial oaths.

GEORGE HEATER, *Master.*

Declared before me at Victoria, Province of British Columbia, this eighth day of November, 1893. }

[Seal.] A. R. MILNE,
Collector of Customs.

APPENDIX No. 14.

DECLARATION OF ALFRED BISSETT, MASTER OF THE SCHOONER "ANNIE E. PAINT," 1893.

Port of Victoria, }
British Columbia. }

I, Alfred Bissett, of the City of Victoria, in the Province of British Columbia, Dominion of Canada, do solemnly declare that:—

I have been in the sealing business for the past four years. I first went as hunter in the schooner "Mary Ellen," along the coast, in 1889. That year, I also sealed on the schooner "Teresa," as mate and hunter, along the coast and in the Behring Sea. In 1891, 1892, and 1893, I was master of the schooner "Annie E. Paint." In 1891, I went up the coast and was warned against entering Behring Sea. In 1892, I sealed along the coast and crossed over to the Russian side.

This year, 1893, I sealed up the coast, and in the waters around Komandorsky Islands.

I cleared from Victoria on the 15th day of February and went down the coast of Oregon to the Columbia River, where I took about one hundred (100) seals, Cape Foulweather bearing East 25 miles. About the 1st of March I came north, off Vancouver Island, but the weather was too bad for sealing.

On the 24th day of March, I sailed northward, and arrived off Sitka on the 4th of April. I took about 30 or 40 seals on the way up. During April and May, I sealed off Cross Sound and Mount St. Elias, taking about six hundred (600) seals. I then sailed to Sand Point, arriving on the 16th of June, where I refitted and sailed for the vicinity of Copper Island on the 28th of June.

The catch I made off the Columbia was composed principally of males. That off Sitka was the same. In fact my whole catch of (740) seven hundred and forty skins, along the coast was almost entirely of male seals. Of these there were (30) thirty old bulls. There were hardly any females at all. Somehow or other this year we missed the female herd; they passed us on the outside. So far as I have heard, the other sealers have had the same experience in this respect, along the coast this year.

In order to show how few females in pup we took, I may say that all my men were most anxious to get the skins of unborn pups, and they only succeeded in securing about fifteen or twenty.

On the way to Copper Island, about one hundred miles S. ½ E. (true) off Amchitka Island, I took eight seals, while crossing the 180th meridian, on the 4th day of July. Four of these eight seals were females heavy with pup. I do not know whether they were going to the Russian or the American side, but I am certain that they could not have reached either of the known seal Islands, in time to pup as they were too far gone

I arrived in the vicinity of Copper Island on the 11th day of July, and on the 12th July took my first seals in that neighborhood. The last seal taken here by my vessel was got on the 5th day of September. During my stay around these Islands I sealed between 54° 00 and 51° 50′ north latitude, and 164° 45′ and 170° east longitude.

The seals taken in July were principally small males, a few straggling cows some barren cows, and some cows in milk.

In August, I got about an equal number of males and females. The cows had a very slight flow of milk, which had begun to turn yellow, thicken, and dry up. After the 10th of August, my position ranged between ninety (90) and one hundred and twenty (120) miles off shore, and the seals I took were principally males. I noticed that the nearer we approached the islands, the greater percentage of females we took.

With regard to "banks" around the Islands, I have seen discoloured water which certainly had the appearance of soundings, but I have never heard of any soundings having been got, though I have tried with one hundred and fifty fathoms of line.

Squid, salmon and other fish in quantities can be found any where from sixty (60) to one hundred and twenty (120) miles off. In my opinion there is no difference in the appearance of the Pribilov Island and Komandorsky Islands herds of seal. The majority taken off Copper Island are darker in colour than those on the American side, but there are very many that show no difference whatever from the Pribylov seals either in colour, fur or shape. The stomachs contain about the same kind of food, principally squid. I was told by the mate of the "Annie E. Paint" that there is an occasional south sea seal shot off Copper Island, the fur is better and more golden in colour.

And I make this solemn declaration, conscientiously believing the same to be true and by virtue of the Act respecting extra-judicial oaths.

Declared before me, at Victoria, in the Province of British Columbia, this seventh day of November, 1893. } ALFRED BISSETT.

[Seal.] A. R. MILNE.
Collector of Customs.

APPENDIX No. 15.

DECLARATION OF WILLIAM O'LEARY, MASTER OF THE SEALING SCHOONER "GENEVA," 1893.

Port of Victoria, }
British Columbia. }

I, William O'Leary, of the City of Victoria, Province of British Columbia, Dominion of Canada, do solemnly declare that:—

I first began sealing in 1886 In that year I brought the "Pathfinder," the first vessel which left Halifax for sealing around the Horn. Went into the Behring Sea and North Pacific Ocean. In 1887, I again took the "Pathfinder" to the North Pacific Ocean and Behring Sea. In 1888, I took the "Teresa" along the coast, but did not enter Behring Sea. In 1889, I took the "Pathfinder" to the North Pacific Ocean and Behring Sea, but the vessel was seized in the latter place by the United States authorities. In the fall of 1889, I brought the "Ocean Belle" around the Horn, and in 1890, I took that vessel along the coast, sealing until the last of June, at which date, off Shumagin Islands, I took charge of the "Walter L. Rich" and went into Behring Sea. In 1891, I took the "Ocean Belle" to the North Pacific Ocean and in the vicinity of Copper Island. In 1892, I took the "Geneva" to the same localities, and this year (1893), I took the "Geneva" to the Japan coast and off Copper Island.

I cleared from Victoria on the 21st January, and sailed direct for the Japan coast, reaching Bonin Islands, off Japan, on the 9th day of March. I left there on the 25th March and first lowered my boats for seal hunting on April 1st, in latitude 38° 15′ N., longitude 142° 12′ E. From that time until the 7th July, I continued sealing along Nipon and Yesso Islands, my positions varying between north latitude 38° 15′, east longitude 143° 12′ and north latitude 43°, and east longitude 155° 58′, which brought me up to the 7th July, upon which date I took my last catch upon the Japan coast. The seals taken upon this coast were mixed males and females.

On the 7th July, in latitude 43° 00′ N., longitude 155° 58′ E., I took 40 seals. Every one of these seals were young, about three years old—mixed male and female, but mostly males. This was 300 miles off the Kurile Islands, and there was nothing to indicate that these seals had been on land.

I am of opinion that there is a large body of seals which never go upon the rookeries. I believe they are chiefly young males which are not allowed upon the rookeries by the bulls, with a sprinkling of young females that have not begun to breed.

I reached the vicinity of Copper Island on the 20th July, and on the 23rd, in latitude 53° 17′ N., longitude 167° 27′ E., first lowered my boats there for sealing. I continued sealing there until the 27th August, between latitude 53° and 54° north, longitude 165° and 167° east, when I started direct for home.

The seals taken off Copper Island were mixed males and females, probably more females than males. None of the females were in full milk, but all had a slight show of milk, which was evidently drying up. I took care to observe about the condition as to milk whenever it was possible for me to do so. In previous years, in Behring Sea, I have observed old females in full milk 80 miles off shore, and shortly afterwards we would get females, in which it was quite apparent that the milk was drying up. From this I judge that they do not suckle their young longer than from four to six weeks.

I am not aware of any "banks" around Copper Island, I have never been able to get soundings, nor have I heard that any has ever been got. I have seen salmon and squid from 50 to 90 miles off shore, to the southward of Copper Island.

This being my first year on the Japan coast, I cannot say where the seals strike the coast of Japan, but they were there when I reached the vicinity of Nipon Island this year on the 1st April, all the way from 60 to 300 miles off shore, and they work about this distance from shore, along Nipon and Yesso. I cannot say as to their movements after leaving the islands in the fall, but I believe they are to be

found all winter where I found them this spring, until they go back to the breeding islands.

I have seen seals mating in the water in Behring Sea.

I can tell if seals have been on the hauling grounds or rookeries; their bellies are discoloured and their flippers are worn.

And I make this solemn declaration, conscientiously believing the same to be true, and by virtue of the Act respecting extra-judicial oaths.

Declared before me at Victoria, in the Province of British Columbia, this eighth day of November, 1893.

WM. O'LEARY.

A. R. MILNE,

Collector of Customs.

APPENDIX No. 16.

DECLARATION OF THOMAS H. BROWN, A HUNTER ON BOARD THE SEALING SCHOONER "AGNES MACDONALD," 1893.

Port of Victoria, British Columbia.

I, Thomas H. Brown, of the City of Victoria, in the Province of British Columbia, Dominion of Canada, do solemnly declare that:—

This year, 1893, I went on a sealing voyage on board the schooner "Agnes Macdonald," to the Japan coast, and to the waters around the Commander Islands.

My first experience in the sealing business was in 1888, when I went as a boat steerer on board the "Maggie Mac," to the coast, and off Copper Island, and from Copper Island waters into the Behring Sea. From this out I have acted as a hunter. In 1889, along the coast and in Behring Sea, on board the schooner "Mary Ellen"; in 1890, along the coast and into Behring Sea, on board the schooner "Maggie Mac." In 1891, along the coast and off Copper Island in the schooner "Maud S."; and in 1892, in the same localities, with the same vessel. This year, as before stated on the Japan coast and off Komandorsky Islands, in the schooner "Agnes McDonald."

We cleared from Victoria on the 24th January, and sailed direct to Yokohama.

I started seal hunting on the second day of April, off the Island of Nipon, and continued along the coast until the 23rd day of June. On that coast, I killed (354) three hundred and fifty-four seals. These seals were mixed—cows and males—but more cows than males. Most of the cows were with pup, but there was quite a number of barren cows. I cannot just recall the number, but I noticed several. They were adult seals, with no pups and no sign of milk. As a rule, I see every seal I kill skinned, and, therefore, have a good opportunity for observation.

The average seal on this coast is larger than on the American coast. I got seals in pup up to the last day I sealed on the Japan coast, 23rd day of June.

We went into Hakodate on the 27th June, and left there on the 8th July for the waters around Copper Island.

The first seals I killed in these latter waters, I took on the 25th day of July, and the last on the 5th day of September. I killed in this vicinity seventy-six (76) seals.

The majority of these seals were females, about one-third being young males. Not one of these females had a full flow of milk, but they all had signs of milk, although it was pretty well dried up. Towards the end of the season there was only a slight trace of the milk left.

I have been four years sealing in the waters off Copper island; one year as a boat steerer and three years as a hunter, and the above has been about my experience in that vicinity, except that the first year I was nearer land and saw some "bulls," but I never saw them any other year.

I hunt with both shot gun and rifle, but principally with a shot gun. If I get within range at which sleeping seals are usually shot, I can very easily tell a female from a male seal in the water. The male has black whiskers, the females white, and the head and neck of the female are finer than those of the male.

I have never known of any banks around the Islands. Hunters never know much about the position of the ship, but I have seen salmon jumping around the boat outside the thirty-mile limit. There are plenty of squid in the same locality.

In the year 1888, when I went as boat steerer on board the "Maggie Mac," we got very near the islands and were shot at from the shore, a number of bullets piercing our boat. I noticed about one hundred dead pups, floating in the water, from a few hundred yards to half a mile off shore. That year I do not think there

were more than two or three vessels sealing around the Islands. I can give no opinion as to the cause of the death of these pups.

And I make this solemn declaration, conscientiously believing the same to be true, and by virtue of the Act respecting extra-judicial oaths.

Declared before me, at Victoria, in the Province of British Columbia, this eighth day of November, 1893. } THOMAS H. BROWN.

[Seal.] A. R. MILNE,
Collector of Customs.

APPENDIX No. 17.

DECLARATION OF R. N. CROWELL, MASTER OF THE SEALING SCHOONER "BRENDA," 1892.*

Port of Victoria, }
British Columbia. }

I, R. N. Crowell, of the city of Victoria, in the Province of British Columbia and Dominion of Canada, do solemnly declare that:—

During the year 1892 I went on a seal hunting voyage, as master of the schooner "Brenda," to the waters in the vicinity of Komandorsky Islands. I went into the northern part of the gulf of Kamtschatka for water, and while there I saw plenty of fur seals, including sleeping cows. This was during the month of August (28th). The residents there showed me a printed proclamation against the hunting of seals in Russian waters, and of course, as I was within the limit, I made no attempt to secure any of these seals.

The only "bank" I know of in the vicinity of Komandorsky Islands is north of Behring Island, off Cape Olgontorsky, the centre of the "bank" being in about latitude 58° N., longitude 170 E. Soundings can be had from forty fathoms up. There were plenty of seals around, but the weather was rough and I only took eight seals in three days.

On the 18th day of September, 1892, when on my road home, my position at noon being 49° 45′ north latitude, and 144° 30′ west longitude, I got on a "bank" at 5 o'clock in the morning, and ran off it again between 7 and 8 o'clock in the evening, my position at noon bringing me in about the middle of the "bank," east and west. I was sailing at the rate of ten miles an hour, and I should say that, running east and west, this "bank" must be quite as large as the Grand Bank off Newfoundland. As it was getting late in the season, and as I was making a good course, I did not stop to try the "bank." At noon, when my observations were taken, Middleton Island bore N. ½ E., true, distant 600 miles.

Off Cape St. Elias, and between that Cape and Middleton Island, principally about 30 miles off the shore, young cows and young male seals are found every year as late as the latter end of August.

I am decidedly of the opinion that somewhere on the coast, between Queen Charlotte Island and Unimak Pass, there must be a seal "rookery," and I base this opinion on the fact that female seals in pup are taken there so heavy with pup, that it would be simply impossible for them to reach any of the known "rookeries" without dropping their pups on the way.

On the 22nd day of February, 1892, in latitude 38° N., longitude 141° W., I passed through a large body of seals off the southern California coast, about 950 miles off land. On this occasion I was not on a sealing voyage, being bound from North Sydney, C.B., to Victoria, British Columbia, on board the schooner "Brenda."

The seals I took last year around Copper and Behring Islands, during the month of August and up to the 7th day of September, were mixed males and females, the females being in different stages of drying up, none showing a full flow of milk.

This year I sealed only along the British Columbia and Alaskan coasts, as far up as Kodiak Islands. Got, all told, 241 seals. Of these there were not over twelve females in pup, the rest being young females and males. I also got one big breeding bull about off Cape St. Elias, about sixty (60) miles off shore.

And I make this solemn declaration, conscientiously believing the same to be true, and by virtue of an Act respecting extra-judicial oaths.

Declared before me, at the City of Victoria, and Province of British Columbia, this ninth day of November, 1893. } ROBERT CROWELL.

[Seal.] A. R. MILNE,
Collector of Customs

* American side 1893.

APPENDIX No. 18.

DECLARATION OF WILLIAM D. BYERS, MASTER OF THE SEALING SCHOONER "CARLOTTA G. COX," 1893.

Port of Victoria, }
British Columbia. }

I, William D. Byers, of the City of Victoria, Province of British Columbia, Dominion of Canada, do solemnly declare that:—

I have been sealing in different capacities for eight years. My first experience was as a boat puller in the schooner "Pathfinder," in 1885. We went along the north-west coast and into the Behring Sea. In 1886 I went on a sealing voyage to the North Pacific Ocean and Behring Sea, as mate of the schooner "Pathfinder." In 1887, I was engaged as a hunter in the schooner "Penelope," in the North Pacific Ocean and around Copper Island. In 1888, I was hunter on the schooner "Triumph," on the coast and in Behring Sea. In 1889 I went to the same waters, as hunter on the "Pathfinder." In 1890 and 1891, I visited the same waters as master of the schooner "Carlotta G. Cox." In 1892, as master of the "Carlotta G. Cox," I sealed along the coast and around Copper Island, and this year, 1893, I took the same vessel to the Japan coast and off Komandorsky Islands.

I cleared from the Port of Victoria, British Columbia, on the 22nd day of January, and sailed direct for the Japan coast, reaching Yokohama on the 16th day of March. I left that port on the 22nd, and began sealing on the 28th day of March, in Lat. 29° 22′ N., Long. 145° 00′ E., taking my first seals. I sealed along the Japan coast until the 30th day of June, upon which day I took my last seal on that coast. During this period my positions ranged from say 39° to 43° of north latitude, and from 142° to 146° of east longitude.

The catch along the Japan coast was composed of young bulls, barren cows and cows with pup. Of this latter class about one-third of the total catch. I also got some young virgin cows. Regarding barren cows, I may say that as the season gets late the crew look for the pups and cut the cows open to obtain them. In this way I noticed several barren cows, but I did not pay sufficient attention to remember the exact number.

On the 3rd day of July, I sailed for the waters around the Komandorsky Islands, reaching there 15th July, during which time I did not lower my boats for seal hunting. The first seal I got in this vicinity was on the 15th July, and my position was latitude 53° 45′ N., longitude 166° 43′ E. The last seal I took there was on the 26th day of August, my position being 53° 17′ N. latitude 168° 37′ E. longitude. During my stay in this vicinity, I hovered between 53° and 54° north latitude and 158° and 169° east longitude. I took fewer females in this neighbourhood than ever before; there was more of a mixture of males. I should say this year they were nearly half males. Up to the 20th July most of the females taken were in full milk, but after that it was quite apparent that the milk was drying up and intermixing with the fat. Prior to and including the 20th July, I took in these waters 29 seals all told.

On my way home, on the 29th August, in latitude 50° 31′ N. longitude 177° 35′ E. I got one seal about 150 miles south of Amchitka Island, Aleutian Chain. It was a male seal.

I have no knowledge of any "banks" to the southward of Copper Island. I have sounded with 100 fathoms of line, looking for fish about (50) fifty miles off, but could get no soundings. Surface fish are plentiful—squid, salmon and other fish—one hundred miles off.

This was my first year on the Japan coast, and I cannot say as to the migration route of seals from the breeding islands, but from Yokohama up, their route lies parallel with the coast of Japan and the Kurile Islands, at distances ranging from (20) twenty to (200) two hundred miles off. I believe they winter between latitude 38° and 41° north. Between the 28th March and the 30th May, I took seals between these positions continuously.

I can easily tell a seal that has been on the rookeries or hauling grounds, from the discoloration of the hair on the bellies. Some of the young bulls I took this year had not been on the rookeries or hauling grounds, as I could observe no external indication.

I believe the yearling males remain in the ocean and do not visit the islands; because we find them south of the Aleutians and south of Komandorsky Islands.

I can distinguish cows from males in the water; they are not so heavy in head and they are thinner and lighter in colour in the throat. Besides they are always more on the alert, and are more difficult of approach even if asleep.

And I make this solemn declaration, conscientiously believing the same to be true, and by virtue of the Act respecting extra-judicial oaths.

WILLIAM D. BYERS.

Declared before me at Victoria, British Columbia, this 18th day of November, 1893.

[Seal.] A. R. MILNE,
Collector of Customs.

APPENDIX No. 19.

DECLARATION OF ABEL DOUGLAS, MASTER OF THE SEALING SCHOONER "ARIETAS," 1893.

Port of Victoria,
British Columbia.

I, Abel Douglas, of the City of Victoria, in the Province of British Columbia, Dominion of Canada, do solemnly declare that:—

My first experience in the sealing business was as master of the schooner "Triumph;" in which vessel I went sealing along the coast in 1881, 1882 and 1883. In 1886, I went as a hunter in the schooner "Challenge," sealing along the coast. In 1887, I went as hunter in the same vessel along the coast and to the North Pacific Ocean. In 1888 and 1889, I went to the North Pacific Ocean and Behring Sea, as hunter on board the "Annie C. Moore." In 1890, I went to the same waters as a hunter in the schooner "Triumph." In 1891, I was master of the schooner "May Bell," and went to the North Pacific Ocean and Behring Sea, being warned out of Behring Sea under the *modus vivendi*. In 1892, I went to the North Pacific Ocean and to the waters around Copper Island, as master of the schooner "Arietas;" and this year, 1893, as master of the same vessel, I went to the Japan coast and to the waters around Komandorsky Islands.

I cleared from the Port of Victoria on the 6th day of February and sailed direct to the Japan coast, reaching Yokohama on the 26th day of March. I left Yokohama on the 1st day of April, and took my first seals on the Japan coast on the 7th day of that month, in latitude 37° 25′ N., longitude 144° 33′ E. The last seals I got on that coast were taken on the 24th day of June, in latitude 44° 07′ N., longitude 147° 60′ E. Between these dates, and along that coast, my positions ranged from 37° 28′ N., latitude to 44° 07′ N., latitude and from 143° 00′ to 147° 30′ east longitude.

The seals taken on the Japan coast were principally young seals—about half male and half female—early in the season. The females were virgin seals which had not yet bred. This was in April. Later on I got more females, a large number of them being in pup. There were also quite a number of barren females, adults, having no young or no show whatever of milk. This was in June off Yesso Island. I also got young males and females non-breeders in this vicinity. There are more of this latter class of seals taken on the Japan coast than on the American side.

I left Sikotan on the 24th day of June for the waters around Komandorsky Islands, arriving off Copper Island on the 10th July.

The first seals I took in this vicinity were got on the 13th day of July, in latitude 53° 20′ N., longitude 168° E. The last seals taken in these waters were got on the 5th day of September in latitude 52° 41′ N., longitude 169° 26′ E; my positions between these dates ranging from latitude 53° to 54° N., longitude 166° 51′ to 169° 26′ E.

The seals secured around Copper Island were mixed cows and males. I cannot say what percentage there was of females but there were a few more than males, and a large number of non-breeding seals—young males and females.

I noticed particularly that of the females taken, comparatively few had a full flow of milk, these being the first caught. Most of the females which had a show of milk were drying up, and I am of opinion that their pups must have been weaned.

Towards the end of the season the milk had almost entirely dried up, the slightest traces only being observable.

I know of no "banks" to the southward of Copper Island. I have tried for fish but could get no soundings. In some places, the water sometimes has the appearance in colour as though soundings existed, and this doubtless accounts for any reports as to "banks." There are plenty squid and salmon off the island in July and August. Most of the seals are taken from 45 to 60 miles off.

In the stomachs of both male and female seals, I have frequently found a variety of fish—squid, small fish similar to herring, and salmon.

And I make this solemn declaration, conscientiously believing the same to be true, and by virtue of the Act respecting extra-judicial oaths.

Declared before me at Victoria, in the Province of British Columbia, this 16th day of November, 1893. [Seal.]

ABEL DOUGLASS.

A. R. MILNE.
Collector of Customs.

APPENDIX No. 20.

DECLARATION OF OTTO BUCHOLZ, MASTER OF THE SEALING SCHOONER "CASCO," 1893.

Port of Victoria, British Columbia.

I, Otto Bucholz, of the City of Victoria, in the Province of British Columbia, Dominion of Canada, do solemnly, declare that:—

My first experience in the sealing business was in 1890. That year I went along the coast and into Behring Sea, as sailing master of the schooner "Minnie."

In 1890, I went sealing in the same localities as master of the schooner "Sea Lion" I was warned out of Behring Sea.

In 1892, I went to same places in the "Sea Lion," as master.

This year, 1893, as master of the schooner "Casco," I visited the Japan coast and the waters around Komandorsky Islands on a seal hunting voyage.

I cleared from Victoria on the 18th January, leaving the vicinity of Vancouver Island on the 3rd of February, and shaped my course direct for the Japan coast, arriving off that coast on the 27th March, my position being 38° 15′ north latitude, 142° 50′ east longitude, off the Island of Nipon. I cruised up the coast in search of seals until the 18th day of April, when I put into Akishi, Yesso Island, having picked up a few seals on the road. I left Akishi on the 21st day of April, and on the 24th I began sealing in latitude 40° 31′ north, and longitude 143° 42′ east. I continued sealing on the Japan coast with success up to the 21st day of June, upon which date I took my last seals on the Japan coast. On that day my position was: latitude 43° 25′ north, longitude 146° 28′ east. During my stay on the Japan coast, after I began sealing (24th April) my positions ranged between 39° and 43° north latitude and 142° and 146° east longitude. The seals taken along this coast were got at distances from 40 to 45 miles off shore. The majority of my catch were males. I have never seen so many male seals as this year. Females in pup were taken all along, but of course they were heaviest towards the end.

Off Yesso Island, we took several adult barren females. These females were not with pup nor had they pupped, as they did not show the least sign of milk. There is no doubt but that they were barren cows. If it had occurred to me to notice this point particularly, I believe I could have observed quite a percentage of this class of seal all along.

On the 19th day of July, I sighted Copper Island about 40 miles distant. On the 23rd day of July, I got my first seals off the Komandorsky Islands, my position being latitude 53° 36′ north, longitude 167° 01′ east. The last seal I took in this neighbourhood was on the 21st day of August, in latitude 53° 59′ north, longitude 168° 28′ east, and between these dates my positions varied from 53° to 55° north latitude and 163° to 169° east longitude.

Of the seals taken off the Komandorsky Islands, fully one half were males and in a very poor and starved condition.

I cannot say as to the different stages of condition of females in milk, as it never struck me to observe this at the time.

I have no knowledge of any "banks" to the southward of the Komandorsky Islands. Last year when there was no limit around the islands, I was as close as fifteen miles, and as far as one hundred miles from the islands. This year I kept off an average distance of (45) forty-five miles, and I never found any banks; although I have sounded trying for bottom fish, I have never been able to get soundings with 120 fathoms of line. All the sealers I have spoken to on the subject have had the same experience. Fresh fish is a luxury on board a sealer on so long a voyage, and we all try for fish. This applies also to the Japan coast, where the seals are taken entirely out of soundings.

My experience this year as to the migration route of the seals to the Komandorsky Islands, is that I met them in April and May, along the coast off Nipon, at a distance of between (20) twenty and (70) seventy miles. I lost the herd in the latter end of June off Sikotan, about the beginning of the Kuriles.

I can tell a seal that has come off the islands by the discoloration of the hair on the belly, and by the condition of the flippers. The flippers of a seal long at sea are

very soft and silky, but contact with the rocks and beaches, makes them rough and worn.

I can distinguish a male from a female in the water by the head and throat. The head of a female is finer and the throat lighter in colour, and the neck and throat more delicate and graceful. A hunter meeting a male and female together will kill the female first, as the male is more apt to stay by it.

And I make this solemn declaration, conscientiously believing the same to be true, and by virtue of the Act respecting extra-judicial oaths.

OTTO BUCHOLZ.

Declared before me, at Victoria, in the Province of British Columbia, this tenth day of November, 1893.

[Seal.] A. R. MILNE.

Collector of Customs.

APPENDIX No. 21.

DECLARATION OF JOHN MCLEOD, MASTER OF THE SEALING SCHOONER "PIONEER," 1893.

Port of Victoria, British Columbia.

I, John McLeod, of the City of Victoria, in the Province of British Columbia, Dominion of Canada, do solemnly declare that:—

I began sealing on the coast in the year 1890. I have never been in Behring Sea, having been excluded under the *modus vivendi*.

During 1892, I was master of the schooner "Ariel," which was seized by the Russian authorities off Copper Island. I was off Copper Island during the month of July that year, and the most of the skins I secured were taken from 60 to 80 miles south of the island. In this vicinity, I got no females with young, and cannot now say whether or not there were any in milk. I have not observed this closely as the thing had never been suggested to me. In this locality, during July, my vessel took three or four big bulls between 70 and 80 miles off the island, to the southward. I can positively state that I was over seventy miles from land when these bulls were taken.

This year I went out as master of the "Pioneer"; I did not go on the Russian side, confining myself to the American coast. I took in all 1,050 skins, nearly all between Queen Charlotte Islands and the Fairweather Grounds. I got as far as Agattu Island, at the extreme end of the Aleutian chain. I did not seal there, but took skins from other sealers and returned home.

Off Agattu, between the 13th and 29th July, I saw seals 75 miles south-west, but as the weather was rough, I did not attempt to get any.

Off the Cape Fairweather, this year, I got ten or twelve very large bulls, distant 120 miles from land. My position at the time was: latitude 57° 58′ N., longitude 139° 46′ W. This was at the latter end of April and first of May.

I saw more bulls on the Fairweather Grounds this year, than I ever saw before. While there were more big "bulls" and males this year, the females were much scarcer than usual. I think they must have been driven off their usual routes, by being worried by the increased number of young males, which are not allowed on the rookeries by the "bulls." Ninety per cent of my catch were males.

I took some cows in milk this year, but I did not observe them with sufficient closeness to be able to form any opinion as to whether they were nursing females, or whether the milk was drying up.

My attention was called this season to seals copulating at sea. There is no doubt in my mind as to the nature of the operation I observed. The sea was quite rough at the time.

An unborn pup taken from the mother will live.

And I make this solemn declaration, conscientiously believing the same to be true, and by virtue of the Act respecting extra-judicial oaths.

Declared before me, at Victoria, in the Province of British Columbia, this tenth day of November, 1893.

JOHN McLEOD,
Master schooner "Pioneer."

[Seal.] A. R. MILNE,

Collector of Customs.

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* Did not go to Asiatic side 1893.

EXTRACTS

FROM THE PRIVATE SEALING LOGS OF PELAGIC SEALERS, SHOWING DATES AND POSITIONS AT SEA, ON THE JAPAN COAST, AND IN THE VICINITY OF THE RUSSIAN SEAL ISLANDS, WHEN AND WHERE FUR SEALS WERE TAKEN.

1893.*

NOTE.—The object of the information being to establish the relative positions from day to day, throughout the season, where seals were taken, and not to show the actual number of skins secured; any slight discrepancy in the number shown to have been taken, as compared with the figures given in the return of the catch at appendix No. 36, can have no significance. Some days, on which single skins were secured in the same positions as the day previous, are not recorded. In other instances where no positions could be taken, skins are omitted.

* John McLeod, master schooner "Pioneer" American side (App. No. 34.)

APPENDIX No. 22.

Schooner "Sadie Turpel," Charles Leblanc, Master, 1893.

Date.	Lat. N.	Long. E.	No. of Seals.	Remarks.
Apr. 19....	39 22	143 12	18	First seals on the Japan coast.
do 20....	39 35	143 44	80	
do 21....	39 45	143 49	12	
do 23....	39 49	144 12	11	
do 24....	40 05	144 07	47	
do 27....	39 40	144 10	5	
do 30....	39 52	142 40	2	
May 1....	39 50	142 50	75	
do 2....	40 00	142 50	54	
do 3....	40 00	142 55	3	
do 6....	39 28	142 33	41	
do 7....	39 25	142 33	3	
do 8....	39 30	142 55	18	
do 9....	40 00	142 58	6	
do 12....	40 47	142 45	36	
do 13....	40 26	142 51	7	
do 14....	40 02	143 00	41	
do 17....	40 14	143 15	45	
do 18....	40 30	143 16	46	
do 19....	40 08	143 08	50	
do 20....	40 07	143 19	25	
do 23....	40 55	142 33	14	
do 24....	40 51	142 39	8	
do 25....	40 58	142 46	37	
do 29....	40 27	143 26	27	
June 2....	42 30	146 00	2	
do 3....	42 55	146 05	13	
do 4....	42 52	145 44	2	
do 6....	42 01	145 11	6	
do 7....	41 14	142 35	25	
do 9....	41 13	142 36	34	
do 17....	42 15	141 40	9	
do 18....	42 03	142 00	15	
do 19....	41 37	143 08	16	
do 22....	42 35	144 50	23	
do 23....	42 40	145 02	22	
do 27....	44 52	148 30	24	
do 28....	44 50	148 50	12	
do 29....	44 56	149 15	54	
July 2....	44 56	149 15	3	
do 4....	44 58	149 25	1	Last seals taken on the Japan coast.
do 16....	48 22	158 15	1	
do 21....	53 40	166 40	1	First lowered boats in waters around Komandorsky Islands.
do 25....	53 23	167 29	11	
do 27....	53 54	167 40	4	
do 28....	53 40	167 35	5	
Aug. 1....	53 27	168 04	23	
do 5....	53 24	167 55	9	
do 8....	56 07	168 30	3	
do 9....	56 32	168 15	49	
do 10....	56 40	168 30	21	
do 11....	56 24	168 30	13	
do 12....	56 19	167 12	44	
do 16....	56 22	167 10	7	
do 17....	56 30	167 36	19	
do 18....	56 20	167 40	17	
do 19....	56 30	167 05	31	
do 20....	56 37	167 00	57	
do 21....	56 22	167 10	33	
do 22....	56 30	167 30	15	
do 23....	56 20	166 20	1	
do 24....	55 05	164 10	18	
do 25....	54 35	164 20	1	
do 26....	53 50	164 40	2	
do 27....	53 05	165 30	6	
do 29....	53 20	167 31	9	
do 31....	53 12	168 19	22	
Sept. 1....	53 10	168 24	3	Last seals taken in the vicinity of Komandorsky Islands. Left 2nd September for home and got two seals, males, about 200 miles south of the Aleutians. Arrived Victoria, 24th September, 1892.

APPENDIX No. 23.

Schooner "Vera," William Sheilds, Master, 1893.

Date.	Lat. N.	Long. E.	No. of Skins.	Remarks.
Mar. 29	34 46	140 03	4	First one taken on Japan coast.
do 31	38 46	144 23	4	
Apr. 1	38 26	143 26	44	
do 2	38 14	142 35	9	
do 4	Foggy		45	
do 5	38 04	142 52	19	
do 6	38 35	143 15	41	
do 7	Foggy		33	
do 10	38 18	143 13	22	
do 12	41 16	143 23	2	
do 13	41 30	143 54	9	
do 18	41 09	144 22	50	
do 20	40 21	143 38	10	
do 21	Foggy		59	
do 24	40 29	143 30	17	
do 28	Foggy		87	
do 29	do		101	
May 1	40 40	143 59	11	
do 2	40 27	143 54	19	
do 3	40 21	143 59	8	
do 6	Foggy		12	
do 7	do		29	
do 8	40 23	144 57	34	
do 9	40 17	144 20	28	
do 10			15	
do 14	41 08	144 29	47	
do 15	Foggy		29	
do 16	do		51	
do 17	do		48	
do 18	do		22	
do 19	do		61	
do 20	do		59	
do 23	do		42	
do 24	do		16	
do 25	41 22	144 09	5	
do 26			60	
do 30			26	
June 3*			3	
do 4*			7	
do 6*			9	
do 7*			83	
do 8*			20	
do 9*			24	
do 10*			25	
do 12*			28	Went into Hakodate 16th June for water and provisions, and left on the 18th.
do 19			42	
do 20			49	
do 23			11	
do 27			44	
do 28	44 17	148 09	15	
do 29			62	
July 1			25	
do 2	44 03	147 55	No seals.	
do 3			46	
do 6	44 53	148 18	106	
do 7			83	
do 9	44 47	148 17	16	
do 10			40	
do 12			12	
do 14			2	Last seals on Japan coast, off Staten Island, 20 miles. This day (14th), sailed direct for waters around Copper Island, arriving 21st July; saw several seals on the road.
do 23	53 37	167 20	18	First lowered for seals off Copper Island.
do 25	53 41	167 19	7	
do 28			16	
do 29	53 23	167 54	3	
Aug. 1	53 17	168 08	43	
do 5	52 57	168 09	12	Last seals off Komandorsky Islands. Sailed direct for Victoria at noon, 5th August, arriving 24th.

* Along the coast between 39° and 41° north latitude, and 144° and 146° east longitude, about an average of 45 miles off shore.

APPENDIX No. 24.

Schooner "Agnes Macdonald," Melville Cutler, Master, 1893.

Date.	Lat. N.	Long. E.	No. of Skins.	Remarks.
	° ′	° ′		
April 2....	38 52	142 42	41	First seals taken on Japan coast.
do 6....	40 40	143 30	71	
do 7....	40 54	143 23	28	
do 8....	41 47	143 40	.....	
do 9....	39 55	143 26	103	
do 10....	39 58	143 20	30	
do 11....	39 59	143 30	27	
do 12....	39 17	143 37	135	
do 13....	39 16	143 50	18	
do 14....	39 13	144 02	144	
do 15....	39 31	144 05	57	
do 16....	39 28	144 00	29	
do 18....	39 18	144 10	81	
do 19....	39 35	144 10	12	
do 20....	40 05	144 56	36	
do 28....	39 54	145 00	104	
do 29....	39 54	144 40	69	
do 30....	39 54	144 59	4	
May 1....	39 54	144 06	6	
do 2....	39 54	144 00	13	
do 6....	40 25	143 23	4	
do 7....	40 53	144 01	2	
do 8....	40 55	144 25	27	
do 9....	40 46	144 54	14	
do 10....	41 20	145 00	16	
do 13....	40 02	144 40	7	
do 14....	40 07	144 22	93	
do 15....	40 08	144 42	8	
do 16....	40 08	144 42	44	
do 17....	40 06	144 42	102	
do 18....	40 14	144 50	106	
do 19....	40 35	144 56	35	
do 20....	40 41	144 49	76	
do 23....	40 13	144 49	89	
do 24....	40 13	144 29	36	
do 25....	40 52	145 06	28	
do 26....	40 52	145 06	12	
June 2....	41 29	145 25	11	
do 3....	42 12	145 45	7	
do 5....	42 22	146 20	41	
do 6....	41 21	145 50	104	
do 7....	41 39	145 39	39	
do 8....	41 13	145 48	40	
do 9....	41 00	145 38	97	
do 10....	40 45	144 40	3	
do 11....	40 02	144 18	16	
do 12....	41 28	145 18	8	
do 15....	43 08	147 03	59	
do 16....	43 15	147 00	95	
do 17....	43 20	146 50	6	
do 18....	43 24	146 50	12	
do 19....	43 21	146 50	19	
do 21....	43 14	146 30	39	
do 22....	43 04	146 30	35	
do 23....	43 04	146 30	9	Last seals taken on Japan coast.
July 8....	.....	.....	.....	Left Hakodate (anchored off Head few days.)
do 20....	.....	.....	.....	Arrived off Copper Island.
do 25....	53 10	167 54	7	First seals taken in the vicinity of Komandorsky Islands.
do 28....	53 38	167 05	13	
Aug. 1....	53 20	167 10	62	
do 5....	53 15	167 40	24	
do 8....	53 10	168 28	11	
do 13....	52 49	167 30	19	
do 15....	53 22	166 45	6	
do 16....	53 23	167 42	27	
do 17....	53 00	168 00	8	
do 18....	53 17	167 45	11	
do 21....	53 02	167 10	31	
do 22....	53 23	166 30	25	
do 24....	53 14	166 25	8	
do 25....	53 11	166 55	3	
do 26....	53 21	166 27	5	
do 28....	52 45	167 40	3	
do 29....	53 05	167 24	24	
do 30....	53 17	167 00	4	
do 31....	53 20	166 45	38	
Sept. 1....	53 20	167 13	10	
do 4....	53 05	166 20	20	
do 5....	52 40	168 00	5	Last seal caught on Russian side and last taken this season. Left 8th September, made Cape Flattery 27th September.

APPENDIX No. 25.

Schooner "Mermaid," W. H. Whitely, Master, 1893.

Date.	Lat. N.	Long. E.	No. of Skins.	Remarks.
	° ′	° ′		
Mar. 25....	36 10	145 00	55	First seals taken on Japan Coast.
Apr. 1....	.....	.....	.....	Went into Yokohama.
do 5....	.....	.....	.....	Left Yokohama.
do 10....	38 00	145 00	53	
do 11	.....	.....	.....	Ran into a whale, vessel receiving severe damage.
do 12....	36 40	145 43	31	Went to Yokohama for repairs, and remained there till May 4.
May 8....	38 30	144 47	4	
do 10....	Foggy	.....	37	
do 11....	"	.....	8	
do 12....	"	.....	26	
do 13....	"	.....	17	
do 14....	38 21	146 00	58	
do 15....	38 37	145 00	1	
do 16....	39 30	144 10	29	
do 17....	39 50	144 00	18	
do 18....	Thick fog....	.....	57	
do 20....	40 10	145 06	18	
do 22....	.....	.....	2	
do 23....	Foggy.....	.....	11	
do 24....	"	.....	43	
do 25....	39 57	144 16	82	
do 26....	.....	.....	9	
do 29....	40 08	144 20	2	
June 2....	40 40	144 00	54	
do 3....	40 20	143 00	49	
do 4....	41 00	143 27	70	
do 6....	41 11	143 50	20	
do 7....	40 45	143 49	51	
do 8....	40 26	143 49	21	
do 9....	40 22	144 00	26	
do 11....	41 50	143 20	26	
do 15....	Foggy	.....	23	
do 16....	"	.....	8	
do 19....	"	.....	17	Last day of sealing on Japan Coast.
do 26....	.....	.....	.....	Arrived at Hakodate.
July 4....	.....	.....	.....	Left Hakodate direct for vicinity of Komandorsky Islands.
do 20....	.....	.....	.....	Arrived off Behring Island—60 miles.
do 23....	53 50	166 00	15	First seals taken in vicinity of Komandorsky Islands.
do 25....	53 00	167 00	11	
do 27....	53 00	168 00	7	
Aug. 1....	53 10	169 00	8	
do 8....	53 20	167 00	15	
do 10....	Foggy	.....	19	
do 11....	53 43	167 30	3	
do 12....	Foggy	.....	24	
do 14....	53 30	167 00	13	
do 17....	53 20	166 00	20	
do 19....	53 30	166 00	46	
do 21....	Foggy.....	.....	18	
do 22....	54 03	166 00	37	
do 24....	53 30	167 23	14	
do 25....	53 38	166 00	17	
do 26....	53 30	165 00	19	
do 28....	53 36	166 00	11	
do 30....	53 15	169 00	16	
Sept. 4....	53 06	169 10	1	Last seal taken in vicinity of Komandorsky Islands.
do 5....	.....	.....	.....	Started for home, arriving in Victoria on the 21st September.

APPENDIX No. 26.

Schooner "W. P. Hall," J. B. Brown, Master, 1893.

Date.	Lat. N.	Long. E.	No. of Seals.	Remarks.
	° ′	° ′		
Apr. 7....	36 38	144 07	5	First seals taken on Japan coast.
do 12....	36 42	143 34	9	
do 15....	36 47	143 01	4	
do 21....	39 14	145 38	56	
do 24....	39 19	146 17	8	
do 28....	39 09	147 03	9	
do 29....	39 20	145 53	30	
do 30....	39 25	145 39	3	
May 9....	39 18	145 41	12	
do 10....	39 48	146 12	19	
do 11....	39 11	145 36	10	
do 12....	39 38	145 49	16	
do 13....	39 31	146 11	7	
do 14....	39 28	146 05	41	
do 17....	39 58	146 09	48	
do 18....	39 40	145 48	65	
do 20....	39 32	144 57	20	
do 23....	40 17	146 20	6	
do 24....	39 57	146 05	29	
do 25....	39 46	145 00	4	
do 26....	39 50	145 27	11	
do 29....	39 16	144 58	1	
do 30....	38 49	146 36	19	
June 1....	39 38	146 40	4	
do 2....	39 54	146 57	27	
do 3....	39 47	146 52	32	
do 4....	39 39	146 33	4	
do 5....	39 38	146 01	15	
do 7....	40 45	146 10	11	
do 8....	41 22	145 21	12	
do 9....	41 30	145 53	27	
do 10....	42 23	147 05	18	
do 11....	43 05	145 45	7	
do 15....	42 30	145 20	12	
do 16....	42 25	146 05	6	
do 18....	42 33	145 05	12	
do 19....	42 30	144 45	12	
do 23....	42 24	145 35	5	
do 25....	.....	.....	.....	Went into Akishi Bay for water.
do 27....	.....	.....	.....	Left Akishi.
do 28....	42 53	145 18	15	
do 29....	42 53	145 18	8	Last seals taken on Japan coast.
July 1....	.....	.....	.....	Sailed for waters around Komandorsky Islands.
do 17....	.....	.....	.....	Arrived Komandorsky Island waters.
do 23....	53 15	168 41	7	First seals in vicinity of Komandorsky Islands.
do 25....	53 27	168 19	7	
do 28....	53 26	169 44	3	
Aug. 1....	53 18	170 13	6	
do 5....	53 21	169 02	6	
do 6....	53 01	169 22	9	
do 8....	52 57	169 53	5	
do 10....	52 53	167 44	3	
do 12....	53 32	168 27	22	
do 13....	53 31	168 00	2	
do 14....	53 39	167 51	5	
do 17....	53 03	168 09	29	
do 18....	53 08	167 57	6	
do 19....	53 12	167 44	15	
do 21....	52 53	167 15	20	
do 23....	52 28	167 29	6	
do 24....	52 28	167 27	5	
do 26....	53 05	167 16	6	
do 27....	52 56	168 02	5	
no 29....	52 47	170 03	10	
Sept. 1....	52 57	169 31	5	
do 11....	52 53	170 11	5	
do 12....	52 40	169 53	3	
do 16....	53 31	168 44	2	Last seals in Russian waters.
do 20....	51 10	175 53	.....	South of Attou Island 100 miles, one seal, female.

APPENDIX No. 27.

Schooner "Sapphire," William Cox, Master, 1893.

Date.	Lat. N.	Long. W.	No. of Skins.	Remarks.
	° ′	° ′		
Mar. 22....	48 53	125 29	5	Cleared from Victoria 28th January, and sealed along the coast
Apr. 6....	56 58	136 53	8	reached Sand Point 17th June; left for Russian side.
do 11....	56 33	137 05	36	
do 12....	57 10	137 32	3	
do 13....	57 35	137 32	11	
do 17....	58 13	143 00	8	
do 18....	58 19	143 07	24	
do 20....	59 15	142 23	43	
do 21....	59 10	142 12	16	
do 22....	59 12	142 39	28	
do 23....	59 00	143 41	93	
do 26....	59 31	143 39	24	
do 27....	59 22	143 05	55	
do 28....	59 13	143 05	66	
do 29....	59 27	143 36	11	
do 30....	59 01	143 54	36	
May 1....	59 10	142 38	43	
do 2....	59 17	142 28	68	
do 3....	59 09	142 52	61	
do 4....	59 06	142 39	82	
do 5....	59 00	142 31	31	
do 7....	59 01	142 40	13	
do 8....	59 00	142 44	31	
do 11....	59 08	142 29	10	
do 12....	59 17	142 50	23	
do 13....	59 17	143 44	22	
do 14....	58 58	144 34	63	
do 15....	58 57	144 47	53	
do 18....	58 33	146 23	56	
do 19....	58 33	146 23	82	
do 20....	58 38	146 18	21	
June 5....	58 34	147 01	20	
do 7....	59 05	146 03	1	Last of coast catch.
do 25....	52 27	163 31	7	Left Sand Point 25th June; off Ounimak Pass.
		Long. E.		
July 5....	49 45	178 38	1	Saw plenty of seals; wind and fog.
do 7....	49 55	175 09	1	do do
do 14....	52 42	165 08	5	First seals taken off Komandorsky Islands.
do 16....	52 47	165 29	3	
do 18....	53 28	164 57	1	
do 21....	53 19	166 44	11	
do 27....	53 00	167 22	14	
do 31....	53 13	167 52	36	
Aug. 4....	53 22	167 46	32	
do 7....	53 15	168 55	9	
do 8....	53 06	167 55	15	
do 11....	53 11	166 24	66	
do 14....	53 00	166 06	19	
do 15....	53 08	166 16	3	
do 16....	53 07	166 13	24	
do 17....	53 11	165 58	4	
do 19....	53 00	165 29	28	
do 21....	52 59	165 28	28	
do 23....	53 12	167 24	3	Last seals taken off Komandorsky Islands.

APPENDIX No. 28.

Schooner "Ainoko," George Heater, Master, 1893.

Date.	Lat. N.	Long. W.	No. of Skins.	Remarks.
				Cleared from Victoria, 26th January, sailed down the West Coast as far as Hesquiat for Indians. Lowered boats for sealing first time 19th April.
April 19....	° ′ 56 53	° ′ 136 33	30	Off Sitka.
do 20....	56 53	136 33	.....	
do 22....	56 00	136 33	10	
do 23....	58 07	138 15	48	
do 24....	58 07	138 15	6	
do 26....	.....	.....	41	Cape Spencer bearing N. 40 miles.
do 28....	58 00	138 50	37	
do 29....	58 31	139 00	13	
May 1....	58 57	140 20	5	
do 2....	58 56	140 28	6	
do 3....	59 10	141 19	10	
do 4....	59 02	141 19	35	
do 5....	58 39	141 19	31	
do 7....	59 00	143 00	10	
do 8....	59 06	143 05	52	
do 11....	55 10	145 33	94	
do 12....	59 09	145 21	123	
do 13....	58 45	145 15	17	
do 15....	58 42	146 30	67	
do 15....	58 44	144 22	90	
do 16....	58 46	144 25	80	Off Cape St. Elias.
do 17....	58 36	146 57	8	
do 18....	58 30	147 14	121	
do 19....	58 57	147 28	59	
do 20....	.....	.....	13	
do 22....	59 09	146 55	13	
do 25....	Cape Clear	bearing W. by S. 15 m.	5	
do 27....	59 02	149 08	10	
do 30....	Marmot Id.	bearing S.W 29 miles.	87	
June 1....	do	do	10	
do 2....	58 38	151 08	60	
do 6....	Seal-Rocks	bearing S.E. by E. 22 m.	47	
do 7....	do	do	53	
do 8....	Marmot Id.	bearing SW.	13	
do 10....	57 36	151 17	2	
do 11....	57 17	151 13	5	
do 12....	.....	Long. E....	12	Between Sand Point and Copper Island.
July 12....	53 43	166 00	1	First seal taken off Komandorsky Island.
do 13....	53 43	166 00	10	
do 14....	53 43	165 45	5	
do 16....	53 43	165 44	30	Last seals taken off Komandorsky Islands.
do 22....	.....	.....	.....	Schooner's papers seized by the "Yakout" and schooner ordered to Yokohama.

APPENDIX No. 29.

Schooner "Geneva," William O'Leary, Master, 1893.

Date.	Lat. N.	Long. E.	No. of Skins.	Remarks.
	°	°		
Apr. 1....	38 15	143 12	58	First seals taken on Japan coast.
do 2....	39 07	143 32	49	
do 7....	39 31	143 50	51	
do 9....	39 40	144 08	94	
do 10....	39 48	144 07	70	
do 13....	40 39	143 50	12	
do 14....	40 38	143 46	71	
do 15....	40 25	143 12	6	
do 16....	40 42	144 06	5	
do 19....	41 01	144 12	15	
do 21....	41 37	144 39	15	
do 24....	41 53	145 00	15	
do 28....	41 39	145 02	16	
do 29 ..	41 24	144 49	37	
May 1....	40 13	142 52	91	
do 2....	39 54	142 48	69	
do 6....	39 35	143 02	25	
do 7....	39 42	142 50	57	
do 8....	39 49	142 27	42	
do 9....	39 51	142 54	16	
do 11....	40 07	143 25	10	
do 14....	41 43	142 03	14	
do 15....	41 36	142 01	62	
do 16....	41 17	142 15	22	
do 17....	41 27	142 15	57	
do 18....	41 19	142 38	49	
do 19....	41 24	142 35	20	
do 20....	41 50	143 17	6	
do 23....	41 24	142 32	33	
do 24....	41 31	142 19	19	
do 26....	41 23	143 25	46	
June 6....	42 57	145 56	32	Bad weather, no sealing.
do 7....	42 57	145 43	47	
do 8....	42 58	146 10	42	
do 9....	42 56	144 37	58	
do 10....	43 12	145 55	50	
do 11....	43 19	146 32	35	
do 15....	42 54	146 12	37	
do 16....	42 30	146 01	9	
do 19....	42 25	145 49	23	
do 22to28	.....	.....	.....	At Akishi for water.
do 29....	43 19	146 01	17	
do 30....	43 21	146 47	19	
July 1....	43 11	146 53	6	
do 4....	42 13	153 36	7	
do 7....	43 00	155 58	40	Last catch on Japan coast.
do 17....	.....	.....	.....	Started for Copper Island grounds ; saw one or two seals on the way up.
do 20....	.....	.....	.....	Reached Copper Island grounds.
do 23....	53 17	167 27	7	First seals taken in vicinity of Komandorsky.
do 25....	53 30	166 21	22	
Aug. 1....	53 18	167 04	53	
do 5....	53 28	166 10	19	
do 8....	53 24	167 12	5	
do 10....	53 27	166 03	12	
do 11....	53 31	165 58	37	
do 12....	53 25	165 47	43	
do 13....	53 29	165 36	4	
do 14....	53 56	165 33	20	
do 16....	53 35	166 34	20	
do 17....	53 38	166 41	28	
do 18....	53 47	165 01	2	
do 19....	53 49	165 49	62	
do 21....	54 06	165 46	34	
do 22....	54 08	165 40	51	
do 24....	53 38	165 21	15	
do 26....	53 29	166 01	13	Last seals taken in vicinity of Komandorsky Islands.
do 27....	.....	.....	.....	Started direct for home, arriving on the 13th September, 1893.

APPENDIX No. 30.

Schooner "Carlotta G. Cox," William Byers, Master, 1893.

Date.	Lat. N.	Long. E.	No. of Skins.	Remarks.
	° ′	° ′		
Mar. 28....	39 22	145 09	74	First seals taken on Japan coast.
do 31....	39 05	144 46	4	
Apr. 1....	39 17	144 46	37	
do 2....	39 25	145 19	95	
do 6....	40 11	145 08	64	
do 7....	40 23	145 28	9	
do 9....	39 45	145 07	168	
do 10....	39 45	145 05	111	
do 11....	39 50	145 10	13	
do 12....	40 03	145 13	1	
do 13....	40 13	145 26	43	
do 14....	40 10	145 05	104	
do 15....	40 09	144 15	38	
do 16....	40 30	144 23	9	
do 17....	39 23	145 07	8	
do 18....	40 34	144 38	2	
do 19....	40 53	145 28	13	
do 21....	40 07	145 50	27	
do 23....	39 59	145 24	7	
do 24....	39 37	145 08	103	
do 27....	40 04	145 10	33	
do 28....	39 43	145 39	155	
do 29....	39 26	145 47	67	
do 30....	39 23	146 26	23	
May 3....	39 36	145 06	15	
do 6....	39 32	145 32	7	
do 7....	40 22	145 32	15	
do 8....	40 15	146 10	33	
do 9....	40 18	145 38	39	
do 10....	40 26	145 12	17	
do 11....	40 05	145 10	48	
do 12....	40 11	145 13	28	
do 13....	40 37	145 20	1	
do 14....	40 11	145 32	61	
do 15....	40 39	145 27	10	
do 16....	40 46	145 21	34	
do 17....	40 53	146 04	17	
do 18....	40 52	145 49	84	
do 19....	40 53	145 59	33	
do 20....	40 54	145 46	39	
do 23....	40 11	144 59	38	
do 24....	40 02	145 01	82	
do 25....	39 44	145 01	54	
do 29....	.....	.....	13	
do 30....	40 22	145 12	11	
.....	.....	.....	.....	Between these dates went into Hakodate for water.
June 7....	41 46	142 21	23	Lowered for seals about 75 miles off Hakodate.
do 8....	.....	.....	107	
do 9....	41 59	143 55	28	
do 10....	42 35	144 45	17	
do 11....	43 15	146 09	28	
do 12....	43 22	145 37	14	
do 14....	42 55	146 28	6	
do 15....	43 10	146 30	36	
do 16....	.....	.....	33	
do 17....	43 30	146 20	3	
do 18....	.....	.....	3	
do 19....	43 01	145 42	41	
do 20....	43 46	145 45	1	
do 21....	43 45	145 50	46	
do 22....	42 50	144 58	46	
do 23....	42 55	144 59	10	
do 27....	43 09	146 22	17	
do 28....	43 11	146 32	33	
do 29....	43 20	146 42	6	At this time abreast of Akishi Bay, Yesso Island,
do 30....	43 00	146 30	9	Last seals caught on Japan coast.
July 3....	.....	.....	.....	Sailed for waters around Komandorsky Islands, reached there 15th July; did not lower for sealing.
do 15....	53 45	166 43	10	First seals in vicinity of Komandorsky Islands.
do 17....	53 46	166 11	17	
do 20....	54 25	169 54	2	
do 23....	53 49	168 25	9	
do 28....	53 17	168 02	19	
do 31....	53 09	167 29	1	
Aug. 1....	53 21	158 09	49	
do 5....	53 12	168 09	10	
do 8....	53 21	167 20	19	
do 10....	53 10	167 51	18	
do 11....	52 57	168 13	2	
do 12....	53 24	168 04	36	
do 14....	53 26	166 35	27	
do 17....	53 19	166 38	30	
do 19....	53 30	166 31	27	
do 21....	53 23	166 38	41	
do 22....	53 15	166 48	17	
do 24....	53 06	169 06	12	
do 25....	53 03	166 42	8	
do 26....	53 17	168 37	11	Last seals on Asiatic side.
do 29....	50 31	177 35	.....	On the way home caught 1 seal about 150 miles south of Amchitka Island, Aleutian Islands, a small bull.

APPENDIX No. 31.

Schooner "Arietas," Abel Douglas, Master, 1898.

Date.	Lat. N.	Long. E.	No. of Skins.	Remarks.
	° ′	° ′		
April 7....	37 35	144 33	26	First seals taken on Japan coast.
do 9....	37 28	143 50	175	
do 10....	36 35	144 10	3	
do 12....	37 35	144 55	149	
May 25....	39 48	143 23	76	
June 2....	41 29	143 02	92	
do 3....	41 17	143 13	40	
do 4....	41 30	143 18	12	
do 6....	41 04	143 56	8	
do 7....	41 17	144 04	25	
do 8....	42 02	144 08	65	
do 9....	42 56	144 09	30	
do 10....	42 53	144 27	18	
do 11....	43 00	145 27	45	
do 15....	43 35	147 10	11	
do 16....	43 45	147 20	41	
do 19....	43 25	147 10	19	
do 20....	43 20	147 10	11	
do 21....	43 26	147 00	11	
do 22....	43 28	147 00	5	
do 23....	43 33	146 59	4	
do 24....	44 07	147 39	33	Last seals on Japan coast. Left Sikotan this day for waters around Copper Island.
do 28....	45 40	151 00	2	
do 29....	46 30	152 20	5	
July 1....	47 32	153 05	2	On the road to Copper Island.
do 13....	53 20	168 00	1	First seals taken in vicinity of Komandorsky Islands.
do 14....	53 04	168 55	1	
do 16....	53 17	168 20	3	
do 17....	53 55	167 25	67	
do 18....	54 00	167 40	2	
do 19....	53 48	167 23	2	
do 23....	53 52	167 09	16	
do 25....	53 33	167 04	21	
do 28....	53 48	167 04	26	
do 29....	53 28	167 10	1	
Aug. 1....	53 43	167 46	40	
do 5....	53 26	166 51	13	
do 8....	53 12	169 16	6	
do 10....	53 13	166 30	11	
do 12....	54 00	166 49	47	
do 14....	53 43	166 18	19	
do 16....	54 11	165 35	2	
do 17....	53 35	167 28	31	
do 19....	53 28	167 33	15	
do 21....	52 51	167 55	17	
do 22....	53 29	167 46	25	
do 26....	53 23	168 40	8	
do 31....	53 20	167 00	39	
Sept. 1....	53 40	167 52	1	
do 4....	52 42	168 56	7	
do 5....	52 41	169 26	2	Last seal. Arrived at Victoria 30th September.

APPENDIX No. 32.

Schooner "Casco," Otto Bucholz, Master, 1893.

Date.	Lat. N.	Long. E.	No. of Seals.	Remarks.
Apr. 24	40 31	143 42	17	First seals on Japan coast. Heavy gale.
do 27	40 18	144 21	8	
do 28	40 38	143 31	27	
do 29	40 35	143 19	30	
do 30	40 17	142 33	37	
May 1	40 02	142 42	70	
do 2	40 02	142 34	38	
do 3	40 26	142 38	12	
do 5	40 27	142 58	8	
do 6	40 09	142 48	62	
do 7	40 06	142 43	92	
do 8	40 09	142 42	54	
do 9	40 44	143 04	46	
do 10	40 47	142 27	49	
do 11	40 35	142 39	5	
do 12	40 28	142 22	10	
do 13	39 59	142 51	59	
do 14	39 45	143 03	44	
do 15	39 50	143 02	15	
do 16	39 40	143 00	60	
do 17	39 35	143 35	47	
do 18	39 39	143 16	13	
do 19	39 51	143 40	14	
do 23	40 40	142 45	41	
do 24	40 55	142 47	142	
do 25	40 48	142 53	61	
do 26	41 21	142 45	25	
do 29	41 26	142 52	18	
do 31				Went into Hakodate.
June 2				Left Hakodate.
do 4	41 33	142 39	58	
do 5	41 52	142 39	4	
do 6	41 30	142 59	4	
do 7	41 36	143 34	56	
do 8	41 37	143 54	36	
do 9	41 31	143 55	20	
do 11	42 47	144 48	25	
do 14	43 06	146 50	3	
do 15	42 49	146 20	63	
do 16	42 48	146 10	29	
do 20	43 25	146 28	4	
do 21	43 25	146 28	20	Last seals on Japan coast.
July 19	53 48	167 36		Sighted Copper Island about 40 miles distant.
do 23	53 36	167 01	15	First seals in vicinity of Komandorsky Islands.
do 27	53 50	167 17	12	
do 28	53 59	167 25	6	
Aug. 1	55 26	168 15	8	North of islands.
do 9	55 25	163 57	26	
do 10	55 03	164 37	11	
do 11	54 15	165 44	8	
do 12	53 53	166 21	26	
do 13	53 40	166 42	6	
do 14	53 42	167 02	9	
do 17	53 56	169 02	8	
do 19	53 21	168 20	5	
do 21	53 59	168 28	19	Last seals in vicinity Komandorsky Islands.
do 23				Left for Victoria, arriving 13th September, 1893.

APPENDIX No. 33.

Schooner "Beatrice," August G. Bjerre, Master, 1893.

Date.	Lat. N.	Long. E.	No. of Seals.	Remarks.
	° ′	° ′		
Mar. 21....	37 11	142 34	8	Sailed from Vancouver, 9th July, 1893, direct for Japan coast, arriving off Nipon Island 21st March. On the road over, got 2 small seals. Lat. 42° 54′ N., long. 127° 57′ W. First seals on Japan coast.
do 22....	37 27	142 33	9	
do 23....	37 23	142 29	46	
do 29....	38 18	142 30	15	
do 31....	38 34	143 23	27	
Apr. 1....	38 44	143 33	73	
do 2....	38 43	143 08	8	
do 5....	39 18	143 51	1	
do 6....	39 18	143 50	60	
do 7....	39 07	143 33	58	
do 9....	39 40	143 23	75	
do 10....	39 43	144 23	24	
do 12....	39 45	144 00	45	
do 13....	39 39	144 23	23	
do 14....	39 30	144 20	13	
do 15....	40 20	143 53	18	
do 16....	40 16	143 44	1	
do 17....	40 16	143 39	1	
do 18....	40 37	143 10	13	
do 19....	40 40	143 43	54	
do 21....	40 54	143 53	13	
do 24....	41 42	145 27	7	
do 28....	40 03	144 25	43	
do 29....	39 37	143 34	51	
May 1....	39 48	143 57	75	
do 2....	39 41	143 46	21	
do 3....	40 28	142 56	6	
do 6....	40 28	142 56	16	
do 12....	40 27	143 11	12	
do 14....	41 16	142 47	61	
do 15....	40 50	143 40	68	
do 16....	41 25	142 24	25	
do 17....	41 24	142 54	47	
do 18....	41 32	142 43	25	
do 19....	41 46	143 43	14	
do 23....	41 34	143 06	44	
do 24....	41 30	143 09	58	
do 25....	41 40	143 30	10	
do 26....	41 30	143 16	1	
do 30....			1	Cape Yermio, bearing N.E. by E., distant 15 miles.
June 2....	41 31	144 14	1	
do 6....	43 05	146 42	13	
do 7....	42 50	145 55	68	
do 8....	42 39	145 30	14	
do 9....	42 35	145 35	27	
do 10....	42 42	144 53	6	
do 11....	43 09	146 57	9	
do 13....	42 53	146 24	1	
do 15....	42 32	145 30	28	
do 16....	42 32	145 14	10	
do 17....	42 33	145 33	3	
do 18....	42 02	144 36	4	
do 21....	41 41	142 18	18	Arrived at Hakodate 24th June, and left 8th July, for vicinity of Komandorsky Islands.
July 11....	41 27	145 14	1	
do 18....	43 59	148 14	1	Last seal on Japan coast.
do 22....	53 36	168 15	1	First seal in vicinity of Komandorsky Islands.
do 23....	53 38	168 21	6	
do 24....	53 31	168 25	5	
do 25....	53 40	168 11	2	
do 27....	53 42	168 08	2	
do 28....	53 30	168 12	8	
Aug. 1....	53 46	169 22	1	
do 4....	54 05	167 20	1	
do 5....	53 36	167 49	4	
do 8....	53 05	168 45	2	
do 10....	53 22	168 52	4	
do 11....	53 18	167 53	1	Left for Vancouver this day, arriving on the 5th September.

APPENDIX No. 34.

Schooner "Pioneer," John McLeod, Master, 1893.*

Date.	Lat. N.	Long. W.	No. of Skins.	Remarks.
Mar. 21	47 50	125 10	26	Cleared from Victoria, January, 1893. Went down west coast of Vancouver Island for Indians, as far as Kyuquot. First day sealed was 21st March.
do 22	47 32	125 09	4	
do 24	48 40	125 22	3	
Apr. 12	51 38	130 13	4	
do 19	57 35	136 50	45	
do 20	58 20	137 34	15	
do 21	57 54	138 33	50	
do 22	58 00	138 50	55	
do 23	58 10	139 00	49	
do 24	58 44	139 12	17	
do 25	.....	.....	2	Thick fog.
do 26	58 38	140 10	24	
do 27	.....	.....	1	do
do 28	58 15	139 52	73	
do 29	58 11	140 53	5	
do 30	58 57	142 11	2	
May 1	58 47	140 30	11	
do 2	58 38	139 40	56	
do 3	58 33	140 18	26	
do 4	58 31	140 24	53	
do 5	58 27	140 20	15	
do 6	58 25	139 53	10	
do 8	58 36	140 42	24	
do 11	57 54	140 31	44	
do 12	58 10	140 36	91	
do 14	57 58	139 46	73	
do 15	.....	.....	.....	Thick fog.
do 16	.....	.....	48	do
do 17	58 12	.....	27	
do 18	.....	.....	47	
do 19	.....	.....	23	do
do 20	.....	.....	8	
do 27	.....	.....	10	
do 30	59 03	147 46	16	
June 2	59 13	149 11	7	
do 11	54 50	157 44	2	
do 16	.....	.....	1	do
do 20	53 58	161 26	1	
do 23	53 42	162 00	5	Most females taken, during these dates, whem abreast of Ounimak Pass.
do 25	53 48	162 34	4	
do 26	53 46	162 30	48	
do 27	.....	.....	18	

* Did not go to Asiatic side.

APPENDIX No. 35.

LIST of Sealing Schooners entered at Hakodate during the first stage of the Sealing Season of 1893.

I.—BRITISH.

Name of Vessel.	Tonnage.	Number of Skins taken.	Date of Entry.
"City of San Diego"	46	194	April 19
"Teresa"	63	86	" 29
"Arctic"	.....	13	May 3
"Casco"	63	1,695	" 31
"Carlotta G. Cox"	75	1,899	June 3
"Maud S."	90	549	" 6
"Sadie Turpel"	56	795	" 11
"*Aurora"	41	299	" 16
"Vera"	61	709	" 16
"Enterprise"	69	1,027	" 16
"Beatrice"	48	1,411	" 24
"Mermaid"	73	809	" 27
"Agnes Macdonald"	107	2,344	" 28
"Umbrina"	98	1,828	" 29
"Annie C. Moore"	113	818	" 30
Total	15 vessels,	13,867	skins.

II.—AMERICAN (U.S.A.)

"Mary Brown"	43	895	May 30
"*San Diego"	36	439	June 12
"Ratler"	93	719	" 19
"*Allie J. Algar"	75	2,223	" 19
"Mary H. Thomas"	93	1,625	" 20
"Lily L."	63	958	" 20
"H. C. Wallberg"	26	575	" 21
"Emma and Louisa"	82	1,291	" 22
"Herman"	100	1,043	" 23
"Mattie T. Dyer"	103	1,579	" 23
"J. Eppinger"	105	1,277	" 23
"Rose Sparks"	42	331	" 24
"Ed. E. Webster"	93	1,692	" 24
"Louis Olsen"	56	582	" 24
"Alton"	84	745	" 24
"Mascot"	72	711	" 24
"Louisa D."	90	749	" 28
"Bowhead"	103	988	" 28
"Kate and Anna"	28	483	" 30
"Retriever"	.....	122	July 1
"Unga"	.....	414	" 4
"Anaconda"	.....	131	" 6
Total	22 vessels,	18,582	skins.

III.—OTHER NATIONALITIES.

Hawaiian ss. "Alexander"	294 tons,	3,212 skins.
Total	1 vessel,	3,212 "

RECAPITULATION.

	Vessels.	Skins.
British	15	13,867
American	22	18,582
Others	1	3,212
Total	38	35,661

*Entered twice.

APPENDIX No. 36.

REPORT of British Columbia Sealing Fleet, Season 1893.

Vessels.	Tons.	Crews.		Boats.	Canoes.	Masters.	Catch.			Total.
		Whites.	Indians.				Coast Catch.	Japan coast.	Russian side catch.	
"Triumph"	98	7	23	4	14	C. N. Cox	1,713	.....	623	2,336
"Sapphire"	108	8	26	12	3	Wm. Cox	1,262	.....	341	1,603
"E. B. Marvin"	117	27	.....	8	.....	J. Gould	1,014	.....	517	1,531
"Mascot"	40	7	14	2	7	H. F. Siewerd	857	.....	327	1,184
"Dora Siewerd"	94	24	.....	7	.....	R. D. Lavender	1,426	.....	434	1,860
"Labrador"	23	11	.....	4	.....	J. J. Whiteley	263	.....	.....	263
"Minnie"	46	5	20	2	10	J. Mohrhouse	489	.....	20	509
"Annie E. Paint"	82	23	.....	8	.....	A. Bissett	740	.....	401	1,141
"Mischief"	45	6	20	2	10	W. Petit	344	.....	.....	344
"Diana"	50	19	.....	6	.....	F. Nelson	707	.....	294	1,001
"Venture"	48	4	16	2	8	G. McDougald	82	.....	.....	82
"Mermaid"	73	23	.....	8	.....	W. H. Whiteley	.....	940	315	1,255
"Fawn"	59	3	21	2	10	L. Magneson	806	.....	77	883
"Walter A. Earle"	68	23	.....	6	.....	T. Magneson	1,622	.....	.....	1,622
"Beatrice"	66	5	24	2	12	D. Macauley	655	.....	.....	655
"Ocean Belle"	83	25	.....	8	.....	T. O'Leary	1,316	.....	547	1,863
"Mountain Chief"	23	1	19	.....	9	J. Nawassum	128	.....	.....	128
"Arietis"	86	23	.....	7	.....	A. Douglass	.....	920	464	1,384
"Cape Beale"	13	.....	10	.....	5	L. E. Quap	86	.....	.....	86
"Kate"	58	7	16	2	8	J. Foster	293	.....	.....	293
"Favourite"	80	7	26	3	13	L. McLean	949	.....	.....	949
"Borealis"	37	6	20	2	10	G. Meyer	1,307	.....	.....	1,307
"Ainoko"	75	5	14	1	7	G. Heater	1,344	.....	46	1,390
"W. F. Sayward"	64	5	16	1	8	G. Fevy	596	.....	.....	596
"Katharine"	82	6	19	2	9	W. D. McDougall	352	.....	363	715
"San Jose"	31	4	16	2	8	R. E. Crowell	242	.....	.....	242
"Enterprise"	69	24	.....	7	.....	J. W. Todd	.....	1,027	274	1,301
"Agnes Macdonald"	107	25	.....	7	.....	M. F. Cutler	.....	2,333	433	2,766
"Victoria"	63	6	20	2	10	H. V. Hughes	420	.....	.....	420
"Rosie Olsen"	39	5	24	2	12	A. B. Whidden	658	.....	.....	658
"Wanderer"	23	4	16	1	8	H. Paxton	296	.....	.....	296
"Viva"	92	23	.....	6	.....	J. W. Anderson	.....	1,441	30	1,471
"May Belle"	58	20	.....	5	.....	C. J. Harris	.....	1,852	.....	1,852
"Umbrina"	98	24	.....	7	.....	C. Campbell	.....	1,837	625	2,462
"Penelope"	79	20	.....	6	.....	F. Cole	.....	2,291	.....	2,291
"Vera"	60	19	.....	5	.....	W. Shields	.....	1,910	99	2,009
"Pioneer"	66	6	23	1	11	J. McLeod	1,050	.....	.....	1,050
"Otto"	86	8	24	2	12	M. Keefe	630	.....	397	1,027
"Mary Taylor"	42	18	.....	5	.....	E. Shields	845	.....	240	1,085
"Brenda"	100	26	.....	8	.....	C. E. Locke	845	.....	408	1,253
"Libbie"	93	23	.....	7	.....	F. Hackett	.....	1,242	389	1,631
"City of San Diego"	46	14	.....	5	.....	M. Pike	.....	942	101	1,043
"Geneva"	92	26	.....	8	.....	Wm. O'Leary	.....	1,612	454	2,066
"Casco"	63	19	.....	6	.....	O. Buckholz	.....	1,473	199	1,672
"Carlotta G. Cox"	76	24	.....	7	.....	W. D. Byers	.....	2,396	376	2,772
"Oscar and Hattie"	81	24	.....	7	.....	W. E. Baker	.....	1,178	1,020	2,198
"Teresa"	63	20	.....	6	.....	E. Lorenz	.....	677	147	824
"Sadie Turpel"	56	24	.....	7	.....	C. LeBlanc	.....	927	475	1,402
"Maud S"	97	24	.....	7	.....	R. E. McKell	.....	989	58	1,047
"Mary Ellen"	63	23	.....	7	.....	W. O. Hughes	.....	1,573	406	1,979
"Walter L. Rich"	76	24	.....	7	.....	S. Balcom	1,321	.....	517	1,838
"Annie C. Moore"	113	26	.....	8	.....	J. Daley	.....	822	333	1,155
"Walter P. Hall"	98	23	.....	7	.....	J. B. Brown	.....	768	263	1,031
Indian catch, canoes	.....	.....	.....	.....	.....	.....	2,035	66	.....	2,101
Totals	3,643	806	432	256	204	.....	26,603	29,206	12,013	67,822
Vancouver Vessels.										
"Beatrice"	.....	.....	.....	.....	.....	.....	.....	1,411	39	1,450
"C. D. Rand"	.....	.....	.....	.....	.....	.....	1,060	.....	.....	1,060
American.						Total Canadian catch	27,663	30,617	12,052	70,332
"Mary Brown"	.....	.....	.....	.....	.....	.....	80	.....	.....	80
"South Bend"	.....	.....	.....	.....	.....	.....	116	64	.....	180
						Grand total	27,859	30,681	12,052	70,592

APPENDIX No. 37.

SUMMARY of Sealing Catch for Season 1893.

	Catch.
Catch of the Victoria, British Columbia, fleet, consisting of 53 vessels, tonnage, 3,643. Crews, white 806. Crews, Indian 432. Number of boats, 256. Number of canoes, 204	67,822
Catch of Vancouver, British Columbia, vessels, consisting of two vessels, tonnage, 100. Crews, white 41. Number of boats, 11	2,510
Catch of American vessels that landed their skins at Victoria, British Columbia, consisting of two vessels	260
Total British Columbia catch	70,592
Catch of American vessels that landed their skins at Puget Sound ports, U.S.A	6,855
Catch of pelagic sealing vessels that landed their skins at San Francisco, U.S.A	2,748
Catch from Pribyloff Islands landed at San Francisco, U.S.A	7,425
Catch from Petropaulovski by Russian Sealskin Company landed at San Francisco, U.S.A	33,193
Total number of seal skins landed at U.S. ports	50,221
Catch of American and Hawaiian vessels landed at Hakodate, Japan	21,799
Grand total	142,612

VICTORIA, BRITISH COLUMBIA, this 4th day of November, 1893.

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Report of the British agent to the Russian Seal Islands.