

C.S.

Repts

Whaling

No.

370.

Treasurer

SUBJECT.

1919

29<sup>th</sup> April

Previous Paper.

443/18.

Report by W. A. G. Bennett on Whaling  
Operations, South Shetlands & Graham's  
Land, during 1918-19 season.

MINUTES.

Report forwarded to Sec of State by  
despatch No 70 of 9<sup>th</sup> May 1919.

19.5.19

*D.*  
Car

File

Subsequent Paper.

361/20

Stanley

Falkland Islands.

28 th April 1919.

Sir.

I have the honour to beg you will be good enough to forward to the Colonial Secretary, the attached report on the South Shetland whaling.

I have the honour to be

Sir.

Your obedient servant

*A. G. Bennett*

Ag Chief Officer of Customs.

To The Hon. the  
Colonial Treasurer.  
Stanley.

REPORT

ON THE WHALING SEASON 1918-19 AT SOUTH SHETLANDS AND

GRAHAM LAND.

The following Vessels operated in this Dependency during the season:-

1."Solstreif".	with 4	catchers,	the Norge	Company.
2."Thor 1".	" 4	"	"Bryde & Dahl "	" .
3."Bombay".	" 3	"	Nor	" .
4."Orn 11".	" 4	"	Ornen	" .
5."Svend Foyn 1".	3	"	Southern	" .
6."Neko".	" 4	"	Messrs Salvesen & Co.	

The following table shows the Dates of arrival and departure in the South Shetlands, and the catch of each factory. The details will be found in the schedules attached. The figures given for the catch of the "Neko" are within a few days before her return to South Georgia, to the Customs of which Dependency she will make her final report.

Ship	Date of arrival	Date of departure	Total catch of oil in Barrels
1."Solstreif"	3 December 18	29 March 1919	20580
2."Thor 1"	12 " "	26 " "	19703
3."Bombay"	3 " "	12 April "	13401
4."Orn 11"	23 " "	12 " "	14970
5."Svend Foyn 1	13 " "	12 " "	15802
6."Neko"	12 " "	3 " "	13000?
			<u>97456</u>

All the factories arrived earlier on the whaling grounds this season, than last.

During the early part of December, good Blue-whale hunting prevailed, this falling off about the middle of the month at Deception Island, "Bombay" and "Solstreif" proceeded to Admiralty Bay, remaining there until the end of the month. "Solstreif" (on which ship I was then living) returned to Deception Isd, later "Bombay" went to Tower Hill at the North end of Belgica Straits, returning to Deception Island owing to the absence of whales. "Neko" also operated from Admiralty Bay until January, then sailed direct to the South end of Belgica Straits

-Anvers Island-

(2)  
-Anvers Island-, remaining there throughout.

Blue-whales continued all the season, but not numerous after mid- December.

The Fin-whales were in large numbers quite outside of all land, where it was impossible to catch them. Some came in, and of those that I saw a large number appeared to be young ones. At no time really abundant.

During the whole season, whales were totally absent from the Belgica Straits, and the waters to the South of them. This I personally observed in March, when on the steam whaler "Bjerk" to 55 S. Lat, not one whale was then seen in a direct line of 120 miles, in each direction.

With the exception of a few days in early December, summer such as it is, never arrived, gales, fog and snow always prevailing, making the catching of whales difficult, and often impossible.

97456 Barrels of oil, including the estimated quantity of 13000 Barrels produced by "Neko", is the result of the seasons catch. The "Neko" sailed direct to South Georgia from the Belgica Straits, without bringing any papers, or returns of catch as I requested Captain Sinclair so to do when he was at Deception Island in order to bury a drowned man, on the 21 st of March. His catch then was 12000 Barrels, and he thought that he could remain another week only.

Deception Island was the base for all factories, ("Neko" excepted) during almost the entire season.

The coal supplied is stated to be of a poor quality, this causing in three cases whaling to cease earlier than intended.

As no factory ship went from Deception Island to Belgica Straits during my stay there, I had no means of visiting these waters, except in March, when I took a passage in the whaler "Bjerk" sent to explore for whales further South. This trip was a particularly bad one for gales. The observations that it was possible to make on the copper deposit, forms the subject of a separate report.

"Neko" by remaining at Anvers Island, made 5-6000 barrels of oil

M.P. 357/19.

oil less than factories operating from the same time, from Deception Island.

During ten days stay in Admiralty Bay it was, with one exception, quite impossible to land owing to gales and ice. On the one occasion that I landed it was on a beach at low tide, owing to the amount of snow it was not possible to get on to rocks on land, those exposed being perpendicular, and very high.

#### OBSERVATIONS.

The season 1918-1919 was somewhat better than the previous one from the number of whales caught.

The Fin-whales averaged small, and very poor. This species is somewhat shy of the various straits, and their calmer waters now, although there was considerable plankton in these places.

Fin, and Blue-whales that came into the Bransfield Straits, appeared to travel to the East and North East.

As many Whales, both Blue and Fin are coated with a thin film of yellow substance, (those so coated are usually fat whales) I procured a small quantity, and on examination by a microscope find it is largely composed of Diatoms that in both species appear the same, with the instrument available. These Whales have probably been for a long time in cold water.

In the number of Whales caught, no count is taken of those caught and afterwards lost, through various causes, these perhaps amount to 2-3%. There are also those wounded and escape, afterwards dying. Some are found later, and then count as caught ones, on the returns given.

At times, especially in the early part of the season, terrific waste of Blue-whale bodies takes place, for want of means and men by which they can be used.

The body of a Blue-whale contains a very large amount of oil, as compared to the Fin-whale. There is a vast amount of difference in whales of the same species, amounting in extreme cases to as much as one to ten.

I would most respectfully point out that after deep and prolonged consideration, I think that in order to safeguard

this

(4).

this valuable industry, the time has arrived to use more of this wasted material, and bring it into the markets of the world.

As one small instance of the waste:— On December 13<sup>th</sup> I reached an elevated spot above the harbour of Deception Island, here I could count near to and on the beach, 46 bodies of Blue-whales, this apart from those used, and those drifted out to sea. This number represented but a small portion only of the waste from three factories, equal in time to one factory working five weeks. By a very modest estimate, these bodies, had they been used up fresh, would have produced 270 tons of oil, 2860 a ton represents over 16000. Huge quantities of whale's bones make up 3 miles of the beach of Deception Island, and line the shore for some 30 miles more.

I would suggest that in the first place no ship factory should be permitted (under penalty) to have at any one time, more dead whales than sufficient for 3 days work, taking the average factory's capacity as being per day 5 Blue, 3 Fin, or 11 Hump-backed-whales, as a basis for blubber.

Secondly that some mechanical means should be devised and installed, to extract the oil from the whale meat, (meat does not contain a large quantity usually), such as a tearing process to reduce the meat small, an electro-magnetic plate to remove particles of the explosive shell with which the whale is killed, followed by rolling under strong pressure, thus removing the oil and blood. The residue meat could go overboard, and the oil parted from the blood by centrifugal means, and finally boiled. By such a method considerable saving would be effected in fuel, labour, and dirt, a much larger amount could be handled in a given time, it would also give more room for the boiling of a greater quantity of bones that are rich in oil.

That pressure boilers of the largest size possible, and to the utmost capacity of the ship, with sufficient crew to work them, should be enforced, That these boilers should have doors and covers of large size, the former not less than 2-2½ feet square, and the latter 3-4 feet in diameter, so that bones can be filled in without in many cases cutting them as now, and be quickly dischar-

(5)

discharged.

All ship factories should carry a condensing apparatus to make 90 tons of water per day when required, for, always in the early season, when whales are most fat and plentiful, little or no water can be obtained from shore.

A great saving would, I think be effected by the mechanical process suggested, even if it displaced one or two pressure boilers. That the residue from the open blubber boilers "Crax" be placed in a pressure boiler, or in a lead lined boiler and boiled by the sulphuric acid process. This latter would give a lower priced oil, but would produce from what is now waste, with little labour.

No attempt is made to recover glue, or any chemical substance from the liquid waste of blubber, meat, or bones.

It is quite impossible for a ship factory to use the entire of every whale caught in these latitudes, but a ship fitted properly could make much more from a whale, thus killing less.

A new departure was made on "Thor 1" by salting experimentally 90 Barrels of whales intestines for tanning into glove leather. 10 tons of salt was used, Many barrels would be required to take the whole from one whale, as the middle layer of the intestine is thick and fatty. As they were handled on board with sharp hooks I fear the results will not be good, for this will cause many small holes in the tanned product. This business was very adversely spoken of by the other Managers of factories there.

Some encouragement should be offered to erect on shore at Deception Island, a plant for the destructive distillation of the whales bones now there, for the boneoil, tar, and charcoal recovery at a very low duty, if any.

During the several whale hunting cruises I have made, numbers of Killer, Bottle-nose, and Lesser Rudolphi Whales are at times seen, but seldom caught, the former never. One reason is that the whale boats are not suitably fitted for this class of whales. On the "Svend Foyn 1", (on which ship I lived from January onwards) two Bottle-nosed-whales were flensed together, and produced 14 Barrels of oil superior to ordinary whale oil by some pounds per ton. A separate fishery for this class could be established.

(6)

The capture of the killer would save Seals, and perhaps Penguins too.

Great objections will, I know, be offered by whaling Managers generally against any new methods. Having lived with them in close contact for four seasons, I have come to know much of their ideas. If the whaling in this Dependency is to continue a success, it must be guided by a strong hand, reasonable, and experienced of the conditions prevailing in these southern waters, for, I am now convinced that these whaling people will do nothing, unless forced.

Their practice away from supervision in those abundant whale years, is to use the best part of the blubber only, allowing the remainder to go, producing only about one third of the oil contained in the animal. Such years have happened twice in the last seven.

They are strongly prejudiced against anything new, and will not try any slight experiment whatever. Being almost all seamen, they, the Managers, have little or no knowledge of anything outside a ship, and with them it is all rule of thumb in this whaling, under the most filthy conditions possible.

Gunners, and whale boats crews are paid per whale, this is not very good from a conservation point of view, for the whole of the expedition is at the <sup>mercy,</sup> gunners, should they be stopped catching by the manager in the absence of a law.

Apart from what I have privately writ enpreviously on the Whaling in these waters, I am now forced to consider that the whales are becoming shy of South Shetlands, for, in two periods of whale-hunting I undertook this year, one of five, and another of two days, I saw many whales, both Blue and Fin that were quite impossible to approach. As these conditions cannot reasonably be expected to improve in the future, is the chief reason for my above suggestions to eliminate waste as far as it is possible, and thus prolong the life of this industry.

The objections that are likely to be raised against the

further



Further reduction of blubber-"Graz", will be that it does not contain more oil. This can be refuted by the proof of a large quantity having washed up on one part of the shore of Deception Island, by S.W. winds, in such quantities that the loose ashy beach has become solidified, and grown out many yards, during the last twelve years or so of whaling here. To walk here, one risks sinking knee deep in a deposit of ranc fat, the result only of a small portion of the total.

Everywhere in this extensive harbour, this fat abounds to more or less extent on the beaches. This season's deposit in the principal spot, was, in February, one foot thick on the shore.

Some attempt at a cleaner process should be devised, for this excessive filth find its way, to some extent, into the oil with the blubber, thus causing free fatty acids, and in my mind, a lower standard of oil.

Among this dirt are coal and ashes, the dust of which covers the ship already smothered with oil. If the ships were fitted for crude oil fuel instead of coal, a great saving in time, labour, and filth would follow, and more fuel could be carried. Another cause is the hot liquid residue, from both open, and pressure boilers, passed overboard. This is stated to contain no fat, but it does, in sufficient quantities to coat everything thickly at the waters edge. This liquid portion of the "Graz" doubtless contains many chemicals, certainly much glue.

I understand that very strong articles will appear in one of Norways leading papers on this subject of waste, by a Norwegian gentleman here this season, and written from a Norwegian point of view. He rightly contending that in his country, half of the people live by this industry. While desiring to remain incognito, he has considerable scientific attainments, and can well speak on the subject.

To The Honourable, The  
Colonial Secretary.  
Stanley. P.I.

I have the honour to be  
Sir.  
Your obedient servant.

*A. Bennett*  
Asst. Officer of Customs

25<sup>th</sup> April 1917.

SCHEDULE (A).

WHALING

SOUTH SHETLANDS. Season 1918-1919.

The following statement shows the Total number and species of Whales caught by all the Whaling Companies (six) operating in these waters, during the season.

Company	Species of Whales						Total
	Right	Sperm	Blue	Fin	H-back	Other	
Norge	1	-	172	273	1	-	447
Nov	-	-	111	160	9	-	280
Southern	-	-	99	223	1	Bottle 3 nose	331
Ornen.	-	-	97	199	5	-	301
Bryde & Dahl	-	-	156	239	9	-	404
Seljesen	(A)						A.
Total	1	-	635	1099	25	3	1763

(A). "Neko" reporting his catch at South Georgia.

WHALING

South Shetlands. Season 1918-19

The following statement shows the total production of whale oil, by each of the six Whaling Companies, during the season:-

Company	Whale oil					
	Quantity.					
	No,0	No,1	No,2	No,3	No,4	Total
Norge	14043	-	370	5652	-	20530
Nor	-	9169	2390	1342	-	13401
Southern	-	10365	3262	2175	-	15802
Ornen	-	9713	3785	1467	-	14970
Bryde & Dahl	11349	3314	4040	-	-	19703
Selresen A.						13000 A.
Total	25827	35066	14347	11146	-	97456

A. Estimated quantity. "Neko" will report his catch at South Georgia.

*Previous = 29207  
 25827 do = 55034  
 25827  
 29207*

WHALING

South Shetlands, Season 1918-19

The following comparative statement shows the Whales caught, and the oil produced therefrom, by each Company, for the last two seasons:-

Company.	Whales		Oil	
	1917-8	1918-9	1917-8	1918-9
Norge	291	447	15100	20580
Nor	117	280	5500	13401
Southern	191	331	3363	15302
Ornen	176	301	3355	14970
Bryde & Dahl	339	404	13650	19703
Salvesen				13000 A.
Total	1114	1763	55973	97456

A. "Neko" will report his catch at South Georgia.

WHALES:  
South Shetlands      Seasons    1917-8, 1918-9

Schedule (D)

The following statement shows the total number of each species of whales caught by the different Companies during the last two seasons.

Company	Right		Sperm		Blue		Fin		Hump-back		Other		Total	
	1917-8	1918-9	1917-8	1918-9	1917-8	1918-9	1917-8	1918-9	1917-8	1918-9	1917-8	1918-9	1917-8	1918-9
Norse	-	1	-	-	116	172	158	273	17	1	-	-	291	447
Nor	-	-	-	-	31	111	70	160	16	9	-	-	117	280
Southern	4	-	-	-	50	99	125	228	12	1	-	3	191	331
Oppen	9	-	-	-	44	97	101	199	22	5	-	-	176	301
Bryde & Dahl	-	-	-	-	156	156	173	239	4	9	6	-	339	404
Salresen A.													-	A
Total	13	1	-	-	397	635	627	1099	71	25	6	3	1114	1763

A. "Neko" reporting his catch at South Georgia.

South Shetlands. Season 1917-8 1918-9

The following comparative statement shows the number of each species of whales caught each month, during the last two seasons.

Month	Right		Sperm		Blue		Fin		Hump-back		Other		Total	
	1917-8	1918-9	1917-8	1918-9	1917-8	1918-9	1917-8	1918-9	1917-8	1918-9	1917-8	1918-9	1917-8	1918-9
November	-	-	-	-	-	-	-	-	-	-	-	-	-	-
December	-	-	-	-	-	213	-	16	-	2	-	1	-	237
January	-	1	-	-	113	241	47	253	16	19	-	-	176	514
February	1	-	-	-	103	104	146	564	21	3	5	-	281	671
March	5	-	-	-	129	66	297	225	20	1	1	2	452	294
April	7	-	-	-	47	6	137	41	14	-	-	-	205	47
Total	13	1	-	-	397	635	627	1099	71	25	6	3	1114	1763

Catch of "Neko" being reported at South Georgia, For season 1918-9

WHALING

South Shetlands Season 1918-9

The following statement shows the Whales caught each Month during the season:-

Month	WHALES						Total
	Right	Sperm	Blue	Fin	Hump-bok	Other	
December	-	-	213	16	2	1 B-nose	237
January	1	-	241	253	19	-	514
February	-	-	104	564	3	-	673
March	-	-	66	225	1	2 B-nose	294
April	-	-	6	41	-	-	47
Total	1	-	635	1099	25	3	1763

"Neko" will report his catch at South Georgia.

Quantity	1918	1919	1920	1921	Total
Whales	1763	-	201	160	2124
Blubber	2118	-	225	1300	4643
Meat	3620	-	315	1800	5735
Oil	1790	-	-	1170	2960
Other					
Totals	20960		270	2087	23317 (Barrels)

WHALES CAUGHT PER MONTH

Catches	Right	Sperm	Blue	Fin	H'back	Other	Total
Right			50	50	1		101
Blue			41	43			84
Fin			27	72			99
Other	1		41	68			110
Totals	1		178	273	1		453

It is important that this form is properly filled in and returned to the Whaling Officer at South Shetlands at the end of the season.

(Sgt.) G. Johnson,  
Manager.

WHALING SEASON, 1918-19.SOUTH SHETLANDS AND GRAHAM'S LAND.

COMPANY Norge.

SHIP "Solstreif".

Whales	Right	Sperm	Blue	Fin	H'back	Other	Total.
December			105		1		106
January	1		41	76			118
February			17	148			165
March			9	49			58
April							
Totals	1		172	273	1		447

OIL PRODUCTION.

Qualities	No.0.	No.1.	No.2.	No.3.	Total.
December	4760	-	300	1692	6752
January	3618	-	255	1300	5173
February	3920	-	315	1500	5735
March	1750	-	-	1170	2920
April					
Totals	14048		870	5662	20580 (Barrels)

WHALES CAUGHT PER WHALE BOAT.

Catcher	Right	Sperm	Blue	Fin	H'back	Other	Total.
Bjerk			52	90	1		143
Bok			41	43			84
Eik			37	72			109
Commonwealth	1		42	68			111
Totals	1		172	273	1		447

It is important that this form is properly filled in and returned to the Whaling Officer at South Shetlands at the end of the season

(Sgd.) G. Johnsen,  
Manager.



WHALING SEASON, 1918-19.

SOUTH SHETLANDS AND GRAHAM'S LAND.

COMPANY Brydie & Dahl.

SHIP "Thor I".

Whales	Right	Sperm	Blue	Fin	H'back	Other	Total.
December			61	5	1		67
January			52	68	5		125
February			24	130	2		156
March			19	36	1		56
April			-				-
Totals			156	239	9		404

OIL PRODUCTION.

Qualities	No. 1	No. 2.	No. 0.	No. 4.	Total.
December	953	736	2627		4386
January	1095	1447	3950		6492
February	975	1531	4424		6930
March	791	326	778		1895
April	-				-
Totals	3814	4040	11849		19703 (Barrels)

WHALES GAUGHT PER WHALE BOAT.

Catcher	Right	Sperm	Blue	Fin	H'back	Other	Total
Odd II			33	66			99
Snorre			18	46	3		67
Edda			41	62	5		108
Ingeborg			64	65	1		130
Totals			156	239	9		404

It is important that this form is properly filled in and returned to the Whaling Officer at South Shetlands at the end of the Season.

(Sgd.) G. Sorensen,

Manager.

WHALING SEASON, 1918-19.

SOUTH SHETLANDS AND GRAHAM'S LAND.

COMPANY Hvalfanger a/s Sydhavet SHIP "Svend Foyn I"

Whales	Right	Sperm	Blue	Fin	H'back	Other	Total.
December			5	8		1 Butlenose	14
January			56	38	1		95
February			25	109			134
March			11	57		2 Butlenose	70
April			2	16			18
Totals			99	228	1	3	331

OIL PRODUCTION.

Qualities	No.1	No.2	No.3	No.4	Total
December	150		14		164
January	3650	839	1165		5654
February	3795	994	780		5569
March	2095	800	230		3125
April	675	615			1290
Totals	13365	3262	2175		15802 (Brls)

WHALES CAUGHT PER WHALE BOAT.

Catcher	Right	Sperm	Blue	Fin	H'back	Other	Total
Gvalvam			28	84		3 Butlenose	115
Scott			41	67	1	"	109
Selvik			30	77		"	107
Totals			99	228	1	3	331

It is important that this form is properly filled in and returned to the Whaling Officer at South Shetlands at the end of the Season.

(Sgd.) O. Andersen,  
Manager.

WHALING SEASON, 1918-19.

SOUTH SHETLANDS AND GRAHAM'S LAND.

COMPANY A/S Ornen.

SHIP s.s. "Orn II".

Whales.	Right	Sperm	Blue	Fin	H'back	Other	Total.
December			4	2			6
January			49	46	4		99
February			25	94	1		120
March			17	44			61
April			2	13			15
Totals			97	199	5		307

OIL PRODUCTION.

Qualities.	No.1	No.2	No.3	No.4	Total.
December	70				70
January	3344	887	423		4654
February	3400	1130	609		5139
March	2262	1339	284		3885
April	642	429	151		1222
Totals	9718	3785	1467		14970 (Barrels)

WHALES CAUGHT PER WHALE BOAT.

Catcher.	Right	Sperm	Blue	Fin	H'back	Other	Total
Klo II.			30	56	2		88
Hauken II			20	52	1		73
Grib LL			26	45	2		73
Port Stanley			21	46			67
Totals			97	199	5		301

It is important that this form is properly filled in and returned to the Whaling Officer South Shetlands at the end of the Season.

(Sgd.) J. Johannessen,

Manager.

WHALING SEASON, 1918-19.

SOUTH SHETLANDS AND GRAHAM'S LAND.

COMPANY Nor.

SHIP "Bombay".

WHALES	Right	Sperm	Blue	Fin	H'back	Other	Total.
December			43	1			44
January			43	25	9		77
February			13	83			96
March			10	39			49
April			2	12			14
Totals			111	160	9		280

OIL PRODUCTION.

Qualities	No.1	No.2	No.3	No.4	Total
December	1830	400	160		2390
January	2380	444	523		3347
February	2662	709	519		3890
March	1720	601	428		2749
April	577	236	212		1025
Totals	9169	2390	1842		13401 Brls.

WHALES CAUGHT PER WHALE BOAT.

Catcher	Right	Sperm	Blue	Fin	H'back	Other	Total.
Neb II			40	65	1		106
Gvas			38	64	6		108
Havorn			33	31	2		66
Totals			111	160	9		280

IT IS IMPORTANT THAT THIS FORM IS PROPERLY FILLED IN AND RETURNED TO THE WHALING OFFICER AT SOUTH SHETLANDS AT THE END OF THE SEASON.

(Sgd.) K. O. Stene,  
Manager.



MINUTE.

The Honble Col. Secy,

I beg to transmit herewith the attached letter dated 28th inst., from Mr. A. G. Bennett, Chief Officer of Customs with the Whaling Fleet, South Shetlands, during the 1918-19 season, submitting his Report (in triplicate) on the Whaling at the South Shetlands.

*M. W. H. Harker*

Actg. Treas. and Collector.  
April 29th 1919