INTERNATIONAL WHALING STATISTICS LXX

EDITED BY
THE COMMITTEE FOR WHALING STATISTICS

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PREFACE

The present publication, International Whaling Statistics No. LXX, embraces the results of the Antarctic whaling during the season 1971–72.

The statistical data in this publication are based on catch reports sent to the Bureau of International Whaling Statistics, Sandefjord.

Oslo, December 1972.

Birger Bergersen. Einar Vangstein.

INTRODUCTION

At the 23rd meeting of the International Whaling Commission held in Washington in 1971 the quota for the combined catch of fin, sei and Bryde's whales in the 1971/72 Antarctic season was set at 2,300 bluewhale units. (One blue-whale unit = 2 fin whales = 6 sei whales = 6 Bryde's whales).

The national quota allocation was agreed between the three countries as follows:

Japan	1,346	blue-whale units
U.S.S.R	904	,,
Norway	50	,,
Total	2,300	blue-whale units

The most important regulations governing the pelagic whaling in the Antarctic were:

- 1. The open season for the taking of fin, sei and Bryde's whales should be from December 12th to April 7th, both days inclusive.
- 2. The open season for taking of sperm whales should be 8 months.
- 3. The open season for taking of minke whales should be 6 months.
- 4. It was forbidden to take fin whales under 57 feet, sei and Bryde's whales under 40 feet and sperm whales under 38 feet. Further it was forbidden to kill blue whales, humpback whales, right whales, and female whales accompanied by a calf.

In the 1971/72 season 4 Japanese and 3 Soviet expeditions participated in the Antarctic whaling. In addition a Norwegian combined catcher/factory ship operated south of 40° South for some few days only, and caught 3 sei whales in all. This expedition had to give up whaling because of engine trouble.

One of the 4 Japanese expeditions (the floating factory "Jinjo Maru" of about 9,000 gross tons and 4 catchers) caught minke whales only. The catch amounted to 3,000 whales. The whaling operations of this expedition included 85 days (from November 26th 1971 to February 18th 1972).

The table below shows the time spent on catching baleen whales, exclusive of small whales, in respect of each expedition:

Expeditions	WI	haling period		Catching days
Japanese:				
Kyokuyo Maru No. 3	${\bf December}$	12 th-March	27 th	107
Nisshin Maru No. 3	${\bf December}$	12th-March	19th	99
Tonan Maru No. 2	${\bf December}$	13th $-$ March	15th	94
U.S.S.R.:				
Sovietskaya Rossia	${\bf December}$	30 th-March	$6 \mathrm{th},$	
	March	$13 { m th-April}$	$7 ext{th}$	94
Juri Dolgorukij	${\bf December}$	12 th-March	30th	110
Sovietskaya Ukraina	${\bf December}$	12 th-March	27th	107
				-
		$\mathbf{A}\mathbf{v}$	erage	102

The average catching period was 102 days as compared to 95 and 97 for the 1970/71 and the 1969/70 seasons.

Apart from the Japanese expedition engaged in the catch of minke whales only, the floating factories were the same as in the previous season. They used 84 catchers with an average gross tons and I.H.P. of 817 and 3,399 respectively.

The total catch and production in the Antarctic amounted to:

- 2,683 fin whales
 - 3 humpback whales
- 5.456 sei whales
- 3,021 minke whales
- 3,366 sperm whales
- 387,064 barrels of whale- and sperm oil.

In addition some of the expeditions hunted sperm whales in the waters north of 40° South Latitude on their voyage to and from Antarctic.

	the A	oyage to Intarctic : 40° S.	Ar	the ntarctic of 40° S.		yage from ntaretic 40° S.		Total
	No. sperm	Oil prod. Brls.	No. spern	oil prod. Brls.	No. sperm	Oil prod. Brls.	No. sperm	Oil prod. Brls.
Japan	860	22,341	126	3,865			986	26,206
U.S.S.R	1,860	53,200	3,240	129,512	1,219	41,606	6,319	224,318
Norway	30	800		encore.			30	800
Total	2,750	76,341	3,366	133,377	1,219	41,606	7,335	251,324

The catch of small whales in Antarctic has been insignificant up to the 1971/72 season. Statistics concerning small whales have been published in the uneven numbers of International Whaling Statistics, which almost exclusively include catches made outside the Antarctic (see tables \mathbb{Z}^{2-9} in Nos. LXV and LXVII).

As stated above the quota for fin, sei and Bryde's whales was set at 2,300 units, but only 2,250.8 units were taken. The Japanese and U.S.S.R. expeditions caught their quotas, but for reasons mentioned above the Norwegian combined catcher/factory ship caught only 0.5 unit of a quota of 50 units. This ship has now been converted to a factory trawler.

The number of blue-whale units taken between each 10 degrees latitude (series) is shown below. In serie D 1,514 units were taken, representing about 67 % of the total catch as compared to 79 % and 67 % in the two previous seasons.

	Number of blue- whale units	%
Serie D, 40–50° S. Lat	1,514.3	67.3
Serie A, 50–60° S. Lat	616.3	27.4
Serie B, 60–70° S. Lat	120.2	5.3
Total	2,250.8	100.0

The following five synoptic tables contain the number of the various species of whales (whales lost excluded) caught in different series, areas and months.

Number of whales caught by series.

	Fin whales	Sei whales	Minke whales	Sperm whales
Serie D	1,251	5,329	1	$2,\!155$
Serie A	1,197	105	19	463
Serie B	234	21	2,999	737
Total	2,682*)	5,455	3,019	3,355

^{*)} Excl. 1 whale.

Number of whales caught by areas.

	Fin whales	Sei whales	Minke whales	Sperm whales
Area I $60^{\circ} \text{ W-}120^{\circ} \text{ W} \dots$	131	22	3	270
Area II 0° $-60^{\circ} \mathrm{W} \dots$	271	270	2	1,042
Area III $0^{\circ} - 70^{\circ} \text{ E} \dots$	1,534	1,171	354	1,114
Area IV $70^{\circ} \text{ E} - 130^{\circ} \text{ E} \dots$	722	2,608	2,660	363
Area V 130° E –170° W	24	1,384	_	566
Total	2,682*)	$5,\!455$	3,019	3,355

^{*)} Excl. 1 whale.

Mean length in Eng. feet by areas.

	Fin M	whales F	Sei M	whales F	Minke M	whales F	$_{\rm M}^{\rm Sperm}$	$_{\rm F}^{\rm whales}$
Area I	64.8	66.4	47.5	51.5	29.0	_	47.5	
Area II	64.4	68.1	46.2	48.8	22.0		45.0	37.2
Area III	65.0	67.9	46.3	48.0	27.3	28.3	43.9	34.8
Area IV	62.8	64.9	46.4	47.8	27.3	28.5	47.5	35.5
Area V	64.9	66.0	46.5	47.7		_	44.5	37.8
Total	64.3	67.0	46.4	47.9	27.3	28.5	45.0	37.5

The catch of blue-whale units by catcher day by area.

Area I	 0.21
Area II	 0.16
Area III	 0.24
Area IV	 0.37
Area V	 0.28
Total	 0.27

Number of whales caught by month.

	Fin whales	Sei whales	Minke whales	Sperm whales	Total
November		ment.	105	216	322
December	153	2,348	$1,\!195$	397	4,092
January	604	2,098	1,031	1,095	4,828
February	1,061	540	675	706	2,982
March	861	441	13	706	2,021
April	4	28	-	235	267
Total	2,683	5,455	3,019	3,355	14,512

The production of by-products is shown in the table below. The figures include by-products from sperm whales caught by the Antarctic pelagic expeditions north of 40° South on their voyage to and from Antarctic.

	Whale meal	Whale liver	Li v er oil Mill.units Vitamin A	Whale meat	Solubles	Other products
	L.tons	L.tons		L.tons	L.tons	L.tons
Japan	613	-	_	80,929	1,574	496
U.S.S.R	12,784	1,791	1,253,000	23,509		610
Norway					_	105
Total	13,397	1,791	1,253,000	104,438	1,574	1,211

Tables showing catch material and catch results in the seasons 1961/62-1970/71 have been published in International Whaling Statistics No. LXVIII.

In earlier publications of International Whaling Statistics supplementary tables (historical tables) have been published in the Introduction (see tables a–k in publication No. LXVIII). These tables give information on eatch and production, eatch material, etc. for the past decade of seasons.

Historical tables are not included in this publication, but will be printed for the 1971/72 and 1972/73 seasons, in No. LXXII, which will also cover the Antarctic 1972/73 season. The 1973/74 season will be added in No. LXXIV, and so on until the next ten year period has been covered.

TABLES

Antarctic season 1971/72.

Table 1. — Whaling results for the various countries in the Antartic in the season 1971/72.

Pelagic whaling.

Countries		$\mathbf{s_{I}}$	ecies of w	hales caug	ht		Oil produc-	Expeditions		
	Fin	Hump- back	Sei	Minke	Sperm	Total	tion. Barrels of 170 kg	Floating factories	Catchers	
Japan	1,252 - 1,431	- 1) 3	4,320 3 1,133	_	126 - 3,240	3	159,610 36 $227,418$	_	41 ²) 1 47	
Total	2,683	1) 3	5,456	3,021	3,366	14,529	387,064	7	89	

¹⁾ Taken under special permit. 2) Combined catcher/floating factory.

Table 2. — Average size of whales caught in the Antarctic in the season 1971/72.

Pelagic whaling.

Number of whales measured.	G		Average size.	
Number of whates measured.	Company.	Males.	Females.	Total.
Fin whales.				
Males 1,298 Total 2,682	No. 1 ,,, 2 ,,, 3 ,,, 4 ,,, 5 ,,, 6	64.5 65.6 64.5 64.7 62.5 63.4	68.0 66.9 67.5 67.2 66.3 65.8	66.6 66.2 66.0 65.9 64.6 64.6
Average		64.3	67.0	65.7
Sei whales.				
Males 2,925 Females 2,530 Total 5,455	No. 1 ,, 2 ,, 3 ,, 4 ,, 5 ,, 6 ,, 7	47.1 46.7 46.3 46.4 46.5 46.1 44.5	49.6 48.6 49.0 47.9 47.3 47.2 49.0	48.3 47.7 47.7 47.1 46.9 46.6 46.0
Average		46.4	47.9	47.1

Number of mb-les and a	a.		Average size.	
Number of whales measured.	Company.	Males.	Females.	Total.
Minke whales.				
$\begin{array}{ll} \text{Males} & 1{,}088 \\ \text{Females} & 1{,}910 \end{array} \text{Total} 2{,}998^{1}) \end{array}$	No. 1	27.3	28.5	28.0
Sperm whales.				
$egin{array}{ll} ext{Males} & 3,195 \ ext{Females} & 160 \ \end{array} & ext{Total } 3,355$	No. 1 ,, 2 ,, 3 ,, 4	$45.6 \\ 45.2 \\ 43.9 \\ 45.4$	37.2 35.8 - 38.8	45.2 44.8 43.9 42.2
Average		45.0	37.5	44.7

¹⁾ Exclusive of 23 whales.

Table 3.—Whales caught in the Antarctic in the season 1971/72, by species, sex and size.

Pelagic whaling.

Fin-whales.

Engl. feet	Numb	er of	W-4-1	Tours for a	Numb	per of	Total
Engl. leet	males	females	Total	Engl. feet	males	females	10(a)
49 52 53 54 55 56 57 58 59 60 61	- 1 2 4 2 69 71 80 57 78	$ \begin{array}{c} 1 \\ 1 \\ -4 \\ 2 \\ 3 \\ 77 \\ 45 \\ 46 \\ 50 \\ 56 \\ 6 \end{array} $	1 1 6 6 5 146 116 126 107	72 73 74 75 76 77 78 79 80	24 10 4 2 - - - - 1,298	81 102 58 56 41 17 17 17 3 1	105 112 62 58 41 17 17 2,682
62 63 64 65 66 67 68 69 70	82 75 103 113 120 106 89 104 60 42	69 54 73 61 86 64 85 79 79	151 129 176 174 206 170 174 183 139	Average Per cent:	(Ma	males 67.0 tal 65.7	feet ",

Sei-whales.

Engl fort	Numb	er of	m / 1	77 1 6 /	Numl	per of	Total
Engl. feet	males	females	Total	Engl. feet	males	females	Total
37	1	3	4	53	4	106	110
38	2	$_2$	4	54	5	62	67
39	4	2	6	55	_	19	19
40	95	76	171	56		4	4
41	131	90	221	57		5	5
42	130	92	222	58	1	1	2
43	195	150	345		harden de de la company agrada		
44	194	146	34 0	Sum	2,925	2,530	$5,\!455$
45	232	161	393			l	
46	340	153	493		(35	1 40.4.6	
47	408	199	607	١.	. Ma		
48	404	201	605	Average s		males 47.9	»
49	379	243	622	İ	[To		»
50	234	289	523	Per cent:	∫ Ma		
51	117	248	365	1 or cent.	} Fe₁	males 46.4	
52	49	278	327	1	-		

Minke-whales.

Engl. feet	Numb	er of	Total	Engl. feet	Numb	er of	Total 200 17 1
Engi. feet	males	females	Total	Engi. Teet	males	females	TOtal
17		1	1	31	8	192	
19	-	1	1	32	_	17	17
$\frac{20}{21}$	-	I	1	33		L	1
$\frac{21}{22}$	1	3	4		1 000	1.010	1) 0 000
22	5	9	14	Sum	1,088	1,910	¹) 2,998
23	12	22	34				
24	20	35	55		(347		c ,
25	69	56	125		(Ma		ieet
26	160	111	271	Average		males 28.5	,,
27	312	238	550		[Tot	tal 28.0	,,
28	309	388	697		ſ Ma	les 36.3	
$\overset{-}{29}$	157	462	619	Per cent:		males 63.7	
30	35	373	408	1	(10.		

¹⁾ Exclusive of 23 whales.

Sperm-whales.

Engl. feet	Numb	per of	Total	Engl. feet	Numb	er of	Total
Ingr. rect	males	females	Total	Engi. leet	males	females	Total
30	_	1	1	49	265	_	265
31	_	4	4	50	192		192
32	3	4	$rac{4}{7}$	51	144	_	144
33	1	6	7	52	140		140
34	$\begin{array}{c} 4 \\ 7 \end{array}$	6	10	53	59	_	59
35		9	16	54	23	-	23
36	6	14	20	55	6	-	6
37	14	6	20	56	5	-	5
38	12 7	48	175	57	2		2
39	201	46	247				
40	213	9	222	Sum	3,195	160	$3,\!355$
41	250	5	255			<u> </u>	
42	248	2	250		(35	450	e i
43	218	-	218		. (Mai		
44	221	_	221	Average		nales 37.5	,,
45	205	_	205		[Tot		,,
46	201	_	201	Per cent:	∫ Ma		
47	208	-	208	Ter cent.	∫ Fer	nales 4.8	
48	232	_	232		•		

Table 4.—Average production of whale oil per blue-whale unit in the Antarctic in the season 1971/72.

Pelagic whaling.

Whales are converted into blue-whale units on the following basis: 1 blue whale unit = 2 fin whales = $2\frac{1}{2}$ humpbacks = 6 sei whales.

		Oil production			
Expeditions	Blue-whale units ¹)	Total	Average per blue-whale unit		
		Barrels ²)	Barrels ²)		
Vo. 1	526. 0	$62,\!559$	118.9		
,, 2	410.0	45,121	110.1		
,, 3	348.8	37,800	108.4		
,, 4	315.2	33,782	107.2		
,, 5	246.0	26,324	107.0		
,, 6	410.0	$42,\!153$	102.8		
,, 7	0.5	36	72.0		
Cotal	2,256.5	247,775	109.8		

 $^{^1)}$ This refers to whales worked up, incl. blue-whale units of 3 blue whales, 3 humpback whales and 4 sei whales caught under special permit north and south of 40° South. $^2)$ Barrel=170 kg. (Barrel=abt. 1/6 long ton, 1 long ton=1,016 kg.)

Table 5.—Size of pregnant female whales caught in the Antarctic in the season 1971/72.

Pelagic whaling.

Fin whales.

Length	Number of pregnant females	Length	Number of pregnant females		
Engl. feet 60 62 63 64 65 66 67 68 69 70	1 5 7 17 22 42 40 48 45 43	Engl. feet 72 73 74 75 76 77 78 79 Total	52 53 29 30 23 8 10 2	Number of foetuses measured of which twin pairs Length not stated	527 4 2

Sei whales.

Length	Number of pregnant females	Length	Number of pregnant females		
Engl. feet 42 43 44 45 46 47 48 49 50 51	$\begin{array}{c} 2\\ 2\\ 4\\ 17\\ 23\\ 70\\ 79\\ 142\\ 159\\ 176\\ \end{array}$	Engl. feet 52 53 54 55 56 57 58 Total	185 67 42 14 3 2 1	Number of foetuses measured	991 8 5

Minke whales.

Length	Number of pregnant females	Length	Number of pregnant females	
Engl. feet 24 25 26 27 28 29	1 8 46 183 348 443	Engl. feet 30 31 32 33 Total	366 189 16 1	Number of foetuses measured

Sperm whales.

Length	Number of pregnant females	Length	Number of pregnant females		
30 31 32 33 34 35 36	1 1 2 3 3 7 6	Engl. feet 37 38 39 41 Total	3 16 14 2	Number of foetuses measured	5

Table 6.—Whale foetuses measured in the Antarctic in the season 1971/72, by species and groups of size, in each month.

Pelagic whaling.

Fin whale foetuses.

Groups of size Engl. feet	Dec.	Jan.	Febr.	March	April	Total
0' 0' 11"	_	1	3	1	_	5
1'— 1' 11"	3	5		3	_	11
2'— 2' 11"	5	6	8	6	_	25
3′— 3′ 11″	3	7	12	4	_	26
4' 4' 11"	8	16	13	6	_	43
5'— 5' 11"	2	19	13	8		42
6'— 6' 11"	5	23	23	14	_	65
7'— 7' 11"	2	11	26	13	_	52
8'— 8' 11"	1	10	19	19	_	49
9'— 9' 11"		12	28	16	_	56
10'—10' 11"	_	2	23	10	1	36
11'—11' 11"		3	20	16	_	39
12′—12′ 11″ :		1	5	11	_	17
13′—13′ 11″	-		10	17	_	27
14'—14' 11"			4	9	_	13
15'—15' 11"	_	_	5	9	_	14
16'—16' 11"		_	3	4	_	7
17'—17' 11"				2		2
18'—18' 11"	-	-	_	1	_	1
Total	29 4′ 4″	116 6′ 0″	215 8' 4"	169 9′ 8″	1 10′0″	530 8′ 0″
				l	1	

Sei whale foetuses.

Groups of size Engl. feet	Dec.	Jan.	Febr.	March	April	Total		
0'— 0' 11"	7	2	_			9		
1'— 1' 11"	7	2				9		
2'— 2' 11"	45	11	1			57		
3'— 3' 11"	83	36	4		-	123		
4' 4' 11"	131	54	6	_		191		
5'— 5' 11"	106	68	18		_	192		
6'— 6' 11"	49	85	19	6		159		
7'— 7' 11"	7	45	16	11		79		
8'— 8' 11"	2	27	15	12	1	57		
9'— 9' 11"		10	16	17	3	46		
10'—10' 11"		_	6	21	1	28		
11'—11' 11"	-	1	2	16	3	22		
12'—12' 11"		_	1	14	_	15		
13'—13' 11"	_		_	7	1	8		
Total	437	341	104	104	9	995		
Average size	4' 5"	5′ 9″	7′ 3″	10' 0"	10′ 6″	5′ 10″		

Minke whale foetuses.

Groups of size Engl. feet	Nov.	Dec.	Jan.	Febr.	March	Total	
0'— 0' 11"	27 5 1	473 288 52	191 197 90	99 67 46	_ _ _	790 557 189	
3'— 3' 11"	-	10	$\frac{22}{6}$	$ \begin{array}{c c} 20 \\ 10 \\ 3 \end{array} $	_	$ \begin{array}{c c} 52 \\ 16 \\ 3 \end{array} $	
6'— 6' 11"	and a	_	1	$\frac{3}{1}$		$\frac{3}{2}$	
8'— 8' 11"			-	- - 1	- - -	- 1	
Total	33 0′ 8″	823 0′ 11″	507 1′ 4″	247 1′ 7″	-	1,610 1′ 2″	

Sperm whale foetuses.

Groups of size Engl. feet	Nov.	Dec.	Jan.	Febr.	March	April	Total
0' 0' 11"	8				2	_	10
1'— 1' 11"	3				-		3
21 21 21	J		_		6	1	7
	-	_	_	_		1	1 6
3'— 3' 11"	1			_	5	_	6
4'— 4' 11"			-	1	5	_	6
5'— 5' 11"	_		_	_	_	1	1
6'— 6' 11"	1	_		_			1
7'— 7' 11"			****		_	_	
8'— 8' 11"	_		_		_	_	
9'— 9' 11"	_	_		_	_	_	_
10'—10' 11"	2		1	1	2		6
11'—11' 11"	$\bar{5}$		î	_	_	1	7
10/ 10/11//	6	_	1	_	1	1	8
12'—12' 11" 13'—13' 11"	3	_		_	1	1	1
	3	_	_	_	-	1	4
14'—14' 11"	-	_	-	_	1	_	1
			-				
Total	29	-	2	2	22	5	60
Average size	7′ 3″	_	10′ 9″	7′0″	4'6"	8' 11"	6′ 6 ″

Table 7.—Whale foetuses measured in the Antarctic in the season 1971/72, by species and sex, in each month.

Pelagic whaling.

	Num	ber of	Sex not	Total	Number of
	males	females	determined		males per 100 females
Fin whale foetuses.					
December	14	15	_	29	93
January	50	66	_	116	76
February	112	100	3	215	112
March	90	79	-	169	114
April	_	1	-	1	-
Total	266	261	3	530	102
Sei whale foetuses.					
December	212	222	3	437	95
January	176	163	2	341	108
February	54	50	-	104	108
March	52	52	-	104	100
April	4	5	_	9	80
Total	498	492	5	995	101
Minke whale foetuses.					
November	10	21	2	33	48
December	350	381	92	823	92
January	211	246	50	507	86
February	113	98	36	247	115
Total	684	746	180	1,610	92
Sperm whale foetuses.					
November	17	11	1	29	
January	_	2	-	2	
February	_	2	_	2	
March	13	8	1 1	22	
April	4	1	-	5	
Total	34	24	2	60	142

