# INTERNATIONAL WHALING STATISTICS

THE COMMITTEE FOR WHALING STATISTICS



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# INTERNATIONAL WHALING STATISTICS

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### PREFACE

The present publication, International Whaling Statistics No. L, embraces the results of the Antarctic whaling during the season 1961-62.

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

Oslo, December 1962.

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Einar Vangstein.

#### INTRODUCTION

Regulative provisions.

At the meeting of the International Whaling Commission in 1960 it was — as will appear from the introduction to International Whaling Statistics No. XLVIII — resolved to suspend the maximum catch for the seasons 1960–61 and 1961–62.

Further, the following resolution was passed:—

"In view of the action taken to suspend the limit on the Antarctic pelagic whale catch until the season 1962–63, the Commission resolves it to be of extreme importance that each of the countries engaged in pelagic whaling should limit the size of its national catch to a level in no event greater than that adopted for the season of 1959–60; and that the Secretary be instructed so to inform those Governments."

For the season 1961–62 the various countries stipulated the following maximum catches:

	Season 1961–62 Blue-whale units
Norway	5,100
Japan	6,680
United Kingdom	1,800
The Netherlands	1,200
U.S.S.R	3,000

When these maximum catches were stipulated, it was taken into consideration that two floating factories, which in 1959–60 were operated for British and Norwegian companies, had later been sold to Japan.

At the meeting of the Commission in 1961 it was resolved that the opening date for the taking of fin- and sei-whales should be December 12th, instead of December 28th, as in the previous seasons.

The most important regulations in the International Whaling Convention for countries operating in the Antarctic in the season 1961-62 were thus as follows:—

- 1. The open season for the taking of fin- and sei-whales was from December 12th
- 2. The open season for the taking of blue-whales was from February 1st.
- 3. The season was open to April 7th inclusive for the taking of blue-, fin- and sei-whales.

- 4. The open season for taking of humpback whales was January 20th, 21st, 22nd and 23rd.
- 5. It was forbidden to take:

Blue-whales under 70 feet Fin-whales » 57 »

Sei-whales » 40 »

Humpbacks » 35 »

Further it was forbidden to kill grey-whales, right-whales, and female whales accompanied by a calf. The Convention also contained a provision enjoining full utilization of whales.

- 6. The taking of hump back whales was prohibited between  $0^\circ$  and  $60^\circ$  West Longitude.
- 7. The open season for sperm-whales was 8 months and the minimum size limit was 38 feet.

The shore station on South Georgia was allowed a 6 months' consecutive catching period, and was otherwise subject to the same provisions as stated in paragraphs 5, 6 and 7, except that the minimum size limit for sperm-whales was 35 feet.

# Whaling period.

At the last meeting of the Commission it was resolved that the catch of fin- and sei-whales could commence on December 12th with the same date of termination as previously, viz. April 7th.

Below is given the period of operation and the number of catching days during the last season for the various expeditions or groups of expeditions:

Expeditions Whaling per	iod season 1961—6	32	Catching days
Norwegian December	$12 { m th-April}$	$7 { m th}$	117
BritishDecember	$12 { m th-April}$	$7 { m th}$	117
NetherlandsDecember	12th–April	$7 \mathrm{th}$	117
RussianDecember	12th–April	$7 \mathrm{th}$	117
Japanese:	_		
Nisshin MaruDecember	12th-March	$28 \mathrm{th}$	107
Nisshin Maru No. 2December	12th-March	$29 \mathrm{th}$	108
Nisshin Maru No. 3December	$12 { m th-April}$	2nd	112
Tonan MaruDecember	12th-March	$29 \mathrm{th}$	108
Tonan Maru No. 2 December	12th-March	29 th	108
Kyokuyo Maru No. 2December	$12 { m th-April}$	$7 \mathrm{th}$	117
Kyokuyo Maru No. 3December	12th–April	$7 \mathrm{th}$	117

Average 115

The catching period for all floating factories averaged about 115 days in 1961–62 as compared with 95 days in 1960–61, 99 days in 1959–60 and 69 days in the three previous seasons.

The whaling period and number of catching days for the pelagic baleen whaling operations in the seasons 1932–33, 1934–35, 1936–37 and as from 1945–46 will be seen from the survey below:

Season	Whaling period	Catching days
1932–33	October 20th–April 14th	177
1934–35	December 1st–March 31st	121
1936-37	December 8th-March 7th	90
1945-46	November 24th–March 24th	121
1946–47	December 8th-April 7th	121
1947-48	December 8th-March 31st	115
1948-49	December 15th-March 26th	102
1949-50	December 22nd–March 15th	84
1950–51	December 22nd-March 9th	78
1951-52	January 2nd-March 5th	64
1952-53	January 2nd-March 16th	74
1953-54	January 2nd-March 18th	76
1954-55	January 7th-March 19th	72
1955–56	January 7th-March 4th	58
1956-57	January 7th-March 16th	69
1957–58	January 7th-March 16th	69
1958–59	January 7th-March 16th	69
1959-60	December 28th–April 7th	102
1960-61	December 28th–April 7th	101
1961-62	December 12th–April 7th	117

The whaling period for blue-whales was until and including the season 1952–53 the same as the period for fin-whales. From and including the season 1953–54 the whaling period and the number of catching days for blue-whales have been as follows:—

Season	Whaling period	Catching days
1953-54 .	January 16th-March 18th	62
1954-55 .	January 21st-March 19th	58
1955-56 .	February 1st-March 4th	33
1956-57 .	February 1st-March 16th	44
1957-58 .	February 1st-March 16th	44
1958-59 .	February 1st-March 16th	44
1959-60 .	February 1st-April 7th	67
1960-61 .	February 1st-April 7th	66
1961-62 .	February 1st-April 7th	66

Pursuant to International regulations any catch of humpback whales in the Antarctic waters was forbidden during the seasons 1938/39–1948/49. During each of the seasons 1949/50–1952/53 it was permitted to kill 1,250 humpbacks, and from and including the season 1953–54 4 days have been open for humpback catching. The whaling period for humpbacks since 1949–50 will be seen from the following survey:—

Season	Whaling period	Catching days
1949–50	December 22-January 3rd	13
1950–51	February 1st-7th	7
1951–52	February 1st- 5th	5
1952–53	February 1st— 3rd and   February 16th—18th	6
1953–54	February 1st-4th	4
1954–55	February 1st- 4th	4
1955–56	February 1st-4th	4
1956–57	February 1st-4th	4
1957–58	February 1st- 4th	4
1958–59	February 1st- 4th	4
1959–60	January 20th-23rd	4
1960-61	January 20th–23rd	4
1961–62	${\rm January}  20 {\rm th-} 23 {\rm rd}$	4

# Weekly catch in blue-whale units.

The weekly catch of the last three seasons, based on the telegraphic reports from the whaling grounds, are recorded in table a, page 11. When considering the heavy decline in the catch, converted into blue-whale units, towards the end of these seasons, it must be taken into account that some of the expeditions terminated their operations during the period from March 15th to April 1st. As will appear from the table, the highest weekly catch during the last season (from March 18th to March 24th) was 1,406 blue-whale units, and the lowest (from December 24th to December 30th) with all expeditions in operation, was 541 blue-whale units. The corresponding figures for the season 1960–61 were 1,687 units (February 5th–11th) and 1,071 units (February 26th–March 4th).

# Whaling matériel.

During the Antarctic season 1961–62 5 countries were participating with a total of 21 floating factories and 261 catchers. This was the same number of floating factories as in the previous season. In 1961–62 U.S.S.R. put into operation another new factory ship, namely "Sovietskaya Rossia". The Norwegian factory ship "Kosmos III", which in 1961 was sold to Japan, was this season operating under the name "Nisshin Maru No. 3".

Table a.—Weekly catch of whales in blue-whale units, according to telegraphic reports from the whaling grounds.

Season 1959—60.		Season 19	960—61.	Season 1961—62.			
Week ending	Number of blue-whale units	Week ending	Number of blue-whale units	Week ending	Number of blue-whale units		
$ \begin{array}{c} 28/12 \phantom{00000000000000000000000000000000000$	1) 1,400 1,416 1,323 1,490 1,151 1,455 1,019 1,150 1,118 937 627 901 794 267 2) 458	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3) 1,079 1,221 1,394 1,549 1,173 1,268 1,687 1,175 1,222 1,071 1,139 941 740 463 300	$\begin{array}{c} 12/_{12} - 23/_{12} \\ 30/_{12} \\ 6/_{1} \\ 13/_{1} \\ 20/_{1} \\ 27/_{1} \\ 3/_{2} \\ 10/_{2} \\ 17/_{2} \\ 24/_{2} \\ 3/_{3} \\ 10/_{3} \\ 17/_{3} \\ 24/_{3} \\ 31/_{3} \\ 7/_{4} \end{array}$	1,483 541 796 1,190 962 1,134 1,187 1,271 1,142 803 833 860 884 1,406 478 272		
$\frac{\text{Total}^{28}/_{12}-^{7}/_{4}}{(102 \text{ days})}$	15,506	$\frac{\text{Total}^{28}/_{12}-^{7}/_{4}}{(101 \text{ days})}$	16,422	$\frac{\text{Total }^{12}/_{12}-^{7}/_{4}}{(117 \text{ days})}$	15,242		

Includes the catch of one expedition from and incl. December 16th 1959.
 Includes the catch of one expedition up to and incl. April 15th 1930.
 Includes the catch of one expedition from and incl. November 28th 1960.

Table b .- Number and gross tonnage of floating factories and catchers engaged in pelagic whaling in the Antarctic 1943/44-1961/62.

	F	loating facto	ries	Catchers					
Seasons		Gross	Average gross		Gross	Average pe	r catcher of:		
	Number	tonnage	tonnage per fl. factory	Number	tonnage	Gross tonnage	I.H.P.		
1943-44	1	12,215	12,215	8	2,480	310	1,013		
1944-45	1	14,362	14,362	8	2,480	310	1,013		
1945-46	9	123,499	13,722	77	24,326	316	1,190		
1946-47	15	198,179	13,212	129	42,307	328	1,233		
1947–48	17	234,759	13,809	162	56,156	347	1,302		
1948–49	18	254,406	14,134	191	76,272	399	1,501		
1949-50	18	257,112	14,284	216	91,499	424	1,582		
1950–51	19	271,646	14,297	239	108,493	454	1,705		
$1951-52^{1}$ )	19	289,120	15,217	263	124,374	473	1,774		
1952-53	16	238,448	14,903	230	113,608	494	1,862		
1953-54	17	261,898	15,406	206	102,525	498	1,874		
1954–55	19	286,205	15,063	233	119,011	511	1,933		
1955-56	19	305,765	16,093	257	131,881	513	1,945		
1956-57	20	320,268	16,013	225	122,569	545	2,073		
1957-58	20	321,656	16,083	237	135,024	570	2,190		
1958-59	20	329,136	16,457	235	140,755	599	2,390		
1959-60	20	357,574	17,879	220	139,266	633	2,557		
1960-61	21	378,835	18,040	252	161,808	642	2,614		
1961–62	21	406,402	19,352	261	170,870	657	2,723		

<sup>2)</sup> Excl. fl.f. "Baikal Maru" with 5 catchers. Catch of sperm-whales only.

The Japanese factory ship "Kinjyo Maru" was, however, withdrawn from Antarctic operations so that the Japanese — as in the previous season — were operating with 7 floating factories.

In the survey below is shown the number of floating factories and catchers operated by the respective countries during the last three seasons:

Countries	Season 1 Floating	<b>95</b> 9—60	Season Floating	196061	Season Floating	1961—62
	factories	Catchers	factories	Catcher	factories	Catchers
Norway	8	70	8	81	7	71
United Kingdom	3	31	<b>2</b>	22	<b>2</b>	22
Netherlands	1	13	1	14	1	15
Japan	6	69	7	83	7	86
U. S. S. R	2	37	3	<b>52</b>	4	67
$\operatorname{Total}^-$	20	220	21	252	21	261

In addition to the pelagic whaling fleet one shore station with 8 catchers was in the season 1961–62 operating from South Georgia. During most of the previous seasons back to 1945–46 three shore stations carried on whaling from South Georgia.

Table b, page 11, gives the number of floating factories and catchers engaged in pelagic whaling since the season 1943–44. The table also shows the average gross tonnage of the floating factories and the average gross tonnage and engine power of the catchers.

The average gross tonnage of the floating factories was 19,352 in 1961–62 as compared with 18,040, 17,879 and 16,457 during the three preceding seasons. The average engine capacity of the catchers increased from 2,557 I.H.P. in 1959–60 to 2,614 I.H.P. in 1960–61 and to 2,723 I.H.P. in the last season.

The increase in the average gross tonnage of the floating factories in the three last seasons is due to the fact that three new Russian floating factories were put into service in the Antarctic in the said seasons, namely: "Sovietskaya Ukraina" in 1959–60, "Juri Dolgorukij" in 1960–61 and "Sovietskaya Rossia" in 1961–62. The average gross tonnage and engine power of the catchers in 1961–62 was almost twice as high as in the season 1947–48. This large increase can also be ascribed to the new Soviet Russian catch matériel. During the 6 last seasons U.S.S.R. has put into service 63 new catchers, each of 843 gross tons and 3,600 I.H.P. During the same period the Japanese whaling fleet has been increased with 29, the Norwegian with 2 and the Netherlands with 3 new catchers.

From the survey on page 14 will be seen the number of floating factories, the number of catchers and the average number of catchers engaged per floating factory from and including the season 1945–46.

Table c.—Total whaling in the Antarctic.

	Species of whales caught.								E	xpedition	s.	Number	
Years.	Blue.	Fin.	Hump- back.	Sei.	Sperm.	Othe	ers.	Total of whales.	Oil production.	Shore sta- tions.	Floating factories.	Catch- ers.	of whales per boat.
1919-20	1 074	9 01 9	061	71		11\ 1	1.4	~ 441	Barrels.	e		44	104
1919-20	1,874 $2,617$	3,213 $5,491$	$ \begin{array}{c c} 261 \\ 260 \end{array} $	71 36			$14 \\ 13$	5,441	272,817	$\frac{6}{6}$	6	44	124 180
1920-21	4,416	2,492	200	103	31	1	-	8,448 7,023	390,627 $452,517$	6	8	47 46	153
1921-22	5,683	$\frac{2,492}{3,677}$	517	103	$\begin{vmatrix} 3\\23 \end{vmatrix}$		_	9,910	614,547	6	13	60	165
1923-24	3,732	3,035	233	193	66	11 1	12	7,271	464,678	6	14	66	110
1923-24	5,703	4,366	359	193	59	1) ]	_	10,488	697,091	6	13	65	161
1924-25	4,697	8,916	364	195	37	11	10	10,488	783,307	6	15	70	203
1925-20	6,545	5,102	189	778	39		12	12,665	872,362	6	17	80	158
1927-28	8,334	4,459	23	883	$\frac{39}{72}$	1) ]	4	13,775	1.037,392	6	18	84	164
1927-28	12.734	6,689	48	808	62	1)		,	1,631,392	6	26	111	183
1929-29	17,898	11,614	853	216	73	1		$20,341 \\ 30,655$		-	38	$\frac{111}{194}$	158
1930-31	29.410		_			1)	$\frac{1}{2}$		2,546,759	6		$\begin{array}{c} 194 \\ 232 \end{array}$	173
1931-32	6.488	10,017 $2,871$	$\begin{array}{c} 576 \\ 184 \end{array}$	145	51	1)		40,201	3,608,348	6	41 5	-	213
1932-33	, ,			16	13		-	9,572	808,560	$\frac{2}{1}$		45	
1932-33	18,891	5,168	159	2	107		-	24,327	2,456,462	1	17	118	206
1934-35	17,349	7,200	872	200	666		-	26,087	2,395,544	2	19	126	207
1935-36	16,500	12,500	1,965	266	577		-	31,808	2,453,999	2	23	153	208
	17,731	9,697	3,162	2	399		-	30,991	2,436,338	2	24	175	177
1936-37	14,304	14,381	4,477	490	926	1)	1	34,579	2,658,108	2	30	196	176
1937–38	14,923	28,009		161	867			46,039	3,340,330	2	31	256	180
1938-39	14,081	20,784	883	22	2,585	1)	1	38,356	2,820,771	2	34	281	136
1939-40	11,480	18,694	2	81	1,938	2) 70		32,900	2,544,253	2	28	240	137
1940-41	4,943	7,831		110	804		-	16,363	1,100,008	1	11	93	176
1941-42	59	1,189	16	52	109		-	1,425	77,819	2	-	12	119
1942-43	125	776	_	73	24		-	998	50,960	1	-	6	166
1943-44	339	1,158	4	197	101		-	1,799	132,001	1	1	15	120
1944-45	1,042	1,666	60	78	45		-	2,891	223,540	1	1	15	193
1945-46	3,606	9,185	238	85	273		-	13,387	818,652	3	9	93	144
1946-47	9,192	14,547	29	393	1,431	1)	1	25,593	1,939,742	3	15	147	174
1947-48	6,908	21,141	26	621	2,622		-	31,318	2,104,051	3	17	183	171
1948-49	7,625	19,123	31	578	4,078		-	31,435	2,219,621	3	18	212	148
1949-50	6,182	20,060		1,284	2,727			32,396	2,166,489	3	18	237	137
1950-51	7,048	19,456	,	886	4,968	3)	1	33,997	2,303,690	3	19	260	131
1951-52	5,130	22,527	1,556	530	5,485	4)	9	35,237	2,479,180	3	20	289	122
1952-53	3,870	22,867	963	621	2,332		-	30,653	2,118,097	3	16	251	122
1953-54	2,697	27,659	605	1,029	2,879	4)	$^{3}$	34,872	2,285,720	3	17	227	154
1954-55	2,176	28,624	495	569	5,790		_	37,654	$ \ 2,242,555$	3	19	254	148
1955-56	1,614	27,958	1,432	<b>56</b> 0	6,974	,	42	38,580		3	19	278	139
1956-57	1,512	27,757	679	1,692	4,429	4) 4	46	36,115		3	20	246	147
1957–58	1,690	27,473	396	3,309	6,535		93	39,896		2	20	257	155
1958-59	1,192	27,128	2,394	2,421	5,652	4) 10		38,890		3	20	256	152
1959-60	1,239	27,575		4,309	4,227	4) 20		38,892		3	20	241	161
1960-61	1,744	28,761	718	5,102	4,800	5) 16		41,289		3	21	268	154
1961-62	1,118	27,099	309	5,196	4,829	<sup>6</sup> )	4	38,555	2,051,776	1	21	269	143

¹) Right-whales. ²) 703 "Baleen-whales" no specification given, 2 right-whales. ³) Bottlenose. ⁴) Minke-whales. ¹) 2 right-whales and 162 Minke-whales. °) 1 right-whale, 2 Minke-whales and 1 Baird's beaked whale.

Number of floating factories and catchers engaged in the pelagic whaling:

Season	Number of floating factories	Number of catchers	Average number of catchers per floating factory
1945 - 46	9	77	8.6
1946 – 47	15	129	8.6
1947 - 48	17	162	9.5
1948 – 49	18	191	10.6
1949-50	18	216	12.0
1950 - 51	19	239	12.6
1951 - 52	19	263	13.8
1952 - 53	16	230	14.4
1953 - 54	17	206	12.1
1954 - 55	19	233	12.3
1955 - 56	19	257	13.5
1956-57	20	<b>2</b> 25	11.3
1957 - 58	20	237	11.9
1958-59	20	<b>2</b> 35	11.8
1959-60	20	220	11.0
1960-61	21	252	12.0
1961 – 62	21	261	12.4

In 1961–62 the Norwegian expeditions used on an average 10.1 catchers per floating factory, the British expeditions 11.0, the Japanese expeditions 12.3, the Netherlands expedition 15.0 and the Russian expeditions 16.8 catchers.

#### Catch results.

The total catch of the pelagic expeditions in the season 1961–62 amounted to 32,615 baleen whales, which, converted into blue-whale units, gave 15,252.6 units. This was 1,181 units less than obtained in the season 1960–61. The catch in 1961–62 with specification in respect to the various species of whales killed, was as follows:

Species of whales	Processed whales	$_{\mathbf{w}\mathbf{hal}\mathbf{\epsilon}\mathbf{s}}^{\mathbf{Lost}}$	Total captured whales	Catch in blue-whale units
Blue-whales	1,116	2	1,118	1,118.0
Fin-whales	26,378	60	$26,\!438$	13,219.0
Humpbacks	309		309	123.6
Sei-whales	4,720	29	4,749	791,5
Right-whales	1		1	0.5
Total baleen whales	32,524	91	32,615	15,252.6
Sperm-whales	4,723	20	4,743	-
Total of whales	37,247	111	37,358	15,252.6

Table d.—Pelagic whaling in the Antarctic.1

		Specie	es of wh	ales cau	ght.					Expeditio	ns.	Number
Years.	Blue.	Fin.	Hump- back.	Sei.	Sperm.	Others.	Total of whales.	Oil production.	Shore sta- tions.	Floating factories.	Catch- ers.	of whales per boat.
1919-20	887	1,540	182				2,609	Barrels. 125,788	_	6	18	145
1920-21	1,761	2,848	157		_	_	4,766	213,490	1	8	26	183
1921-22	1,846	1,782	107	_		_	3,628	213,430 $203,475$	i	8	$\frac{26}{26}$	140
1922-23	2,114	2,232	197		4	-	4.547	266,994	ì	12	37	123
1923-24	1,805	1,657	103	2	17	<sup>2</sup> ) 12	3,596	217,215	ì	13	43	84
1924-25	2,191	2,347	97		35	-) 12	4,670	290,915	i	12	41	114
1925-26	2,131	3,207	128	182	$\frac{35}{25}$	²) 10	6,394	378,850	1	14	47	136
1926-27	2,856	3,958	189	413	$\frac{23}{22}$	<sup>2</sup> ) 10	7,450	455,070	i	16	57	131
1927-28	6,209	3,102	23	788	12	2) 4	10,138	733,912	1	17	61	166
1928-29	11,174	3,559	33	412	31	-) 4	15,209	1,282,711	i	25	88	173
1929-30	17,410	8,218	807	412	$\frac{31}{34}$	_	26,469	2,298,796	1	38	167	158
1930-31	28,325	8,601	510	1	27	2) 1	37,465	3,420,410	i	41	205	183
1931-32	6,050	1,136	178	_	3	-, 1	7,367	686,355	_	5	33	223
1932-33	18,624	4,441	159	_	107	_	23,331	2,401.879	_	17	$\frac{33}{112}$	208
1933-34	16,813	5,472	780	_	659		23,724	2,401,879 $2,263,357$	_	19	114	208
1934-35				141	556	1			-	$\frac{19}{23}$	143	211
1935-36	15,944	11,664	$1,928 \\ 3,121$			-	30,233	2,345,858	_	$\begin{array}{c c} 23 \\ 24 \end{array}$	165	177
1936-37	16,510	9,177		$\frac{2}{19}$	396	2\ 1	29,206	2,293,153	-	30		178
1937-38	14,183	13,302		1	856	<sup>2</sup> ) 1	32,821	2,576,479	_	30	$\frac{184}{244}$	181
1938-39	14,826	26,457	2,039	6	824	9\ 1	44,152	3,250,064	-			136
1939-40	13,849	19,477	883	3	2,468	2) 1	36,681	2,709,281	_	34	270	139
1940-41	11,392	17,757	2	1	1,853	³) 704	31,709	2,479,471	-	28	228	176
1940-41	4,936	7,084	2,675	22	778	_	15,495	1,055,510	_	11	88	170
1941-42	_	_	_	_	_	_	_	-	-	_	-	_
1942-43	311	F00		_	_	_	- 025	99,000			-	105
1944-45		526	_	-	-	_	837	82,000	_	1	8	103
1945-46	914	679	-	2	010	_	1,595	148,000	-	1	8	149
1945-40	3,526	7,729	-	$\frac{3}{2}$	216	-	11,474	739,775	-	9	$\begin{array}{c} 77 \\ 129 \end{array}$	$149 \\ 175$
1947-48	8,865	12,877	1	12	1,298	-	23,043	1,794,424	-	15		149
1947-48	6,862	18,999	2		2,494	-	28,369	1,940,653	-	17	162	179
	7,399	17,201	13	16		_	28,494	2,047,427		18	191	
1949-50	6,168	18,061	2,117	101	2,570	-	29,017	2,019,368	-	18	216	134
1950-51	6,966	17,474	1,630	367	4,742	4) 1	31,180	2,152,498	-	19	239	130
1951-52	5,124	20,520	1,546	32	5,344	5) 9	32,575	2,334,805	-	20	268	122
1952-53	3,866		954	123	2,185	-	28,325	1,998,094	-	16	230	123
1953-54	2,684	24,986	594	251	2,700	5) 3	31,218	2,100,884		17	206	152
1954-55	2,163	25,878	493	146			34,388	2,061,789	-	19	233	148
1955-56	1,611	25,289	1,432	276	6,881	<sup>5</sup> ) 42	35,531	2,134,808	_	19	257	138
1956-57	1,505	25,700	679	712	4,345	5) 46	32,987	2,098,854	-	20	225	147
1957-58	1,684		396	2,385	6,310	5)493	36,490	2,146,206	-	20	237	154
1958-59	1,191	25,837	2,394	1,402	5,437	5)103	36,364	2,050,241	-	20	235	155
1959-60	1,230	26,415	1,338	3,234	4,138	5)204	36,559	2,050,892	_	20	220	166
1960-61	1,740	27,374	718	4,310	4,666	6)164	38,972	2,123,157	-	21	252	155
1961-62	1,118	26,438	309	4,749	4,743	7) 4	37,361	2,001,961	_	21	261	143

<sup>&</sup>lt;sup>2</sup>) For the seasons 1919/20-1930/31 the catch in the Ross Sea and from South Shetland and South Orkney is included in the figures for pelagic whaling in the Antarctic. <sup>2</sup>) Right-whales. <sup>3</sup>) 703 "Baleen whales" no specification given, 1 right-whale. <sup>4</sup>) Bottlenose. <sup>5</sup>) Minke-whales. <sup>6</sup>) 2 right-whales and 162 Minke-whales. <sup>7</sup>) 1 right-whale, 2 Minke-whales and 1 Baird's beaked whale.

Table e.—Average production per floating factory and catcher in the pelagic whaling in Antarctic 1930/31—1938/39 and 1948/49—1961/62.

#### I. Floating factories:

		Total		Catchin	g days.	Total	Average
Seasons.	Total production of whale oil.	number of fl. fact.	Average production per fl. fact.	Total.	Aver- age	production per day for the whole fleet.	production per floating factory's day-work.
	Barrels.		Barrels.			Barrels.	Barrels.
1930–31	3,384,048	41	82,538	6,940	169	20,024	488
1931-32	686,193	5	137,239	773	155	4,427	888
1932–33	2,395,042	17	140,885	2,470	145	16,518	970
1933–34	2,225,663	19	117,140	2,298	121	18,394	969
1934–35	2,312,702	23	100,552	2,831	123	18,802	817
1935–36	2,269,524	24	94,564	2,329	97	23,397	974
1936–37	2,527,026	30	84,234	2,881	96	26,323	877
1937–38	3,201,153	31	103,263	3,157	192	31,384	1,014
1938-39	2,564,506	34	75,427	3,273	$^{66}$	26,714	784
1948–49	1,844,867	18	102,493	1,818	101	18,266	1,015
1949-50	1,888,968	18	104,943	1,492	83	22,759	1,266
1950–51	1,909,640	19	100,507	1,471	77	24,801	1,298
1951–52	2,054,853	19	108,150	1,216	64	32,107	1,690
1952-53	1,884,207	16	117,763	1,184	74	25,462	1,591
1953-54	1,964,994	17	115,588	1,292	76	25,855	1,521
1954–55	1,780,067	19	93,688	1,356	71	25,071	1,313
1955–56	1,797,069	19	94,583	1,104	58	30,984	1,628
1956–57	1,883,961	20	94,198	1.371	69	27,304	1,374
1957–58	1,845,147	20	92,257	1,381	69	26,741	1,336
1958–59	1,798,447	20	89,922	1,385	69	26,064	1,299
1959-60	1,859,375	20	92,969	1,973	99	18,782	942
1960-61	1,915,118	21	91,196	2,004	95	20,159	956
1961–62	1,797,178	21	85,580	2,415	115	15,628	744

### II. Catchers:

			Average	Catchir	ng days.	Average oil	Average number
Seasons.	Total production of whale oil.	Total number of catchers.	production per catcher.	Total.	Average per catcher.	production per catcher's day-work.	of whales caught <sup>1</sup> ) per catcher's day-work
	Barrels.		Barrels.			Barrels.	
1930-31	3,384,048	200	16,920	33,690	168	100	1.09
1931-32	686,193	33	20,794	5,149	156	133	1.43
1932-33	2,395,042	112	21,384	16,150	144	148	1.44
1933-34	2,225,663	114	19,523	13,725	120	162	1.68
1934-35	2,312,702	143	16,173	18,143	127	127	1.64
$1935 – 36 \dots$	2,269,524	165	13,755	16,173	98	140	1.78
1936-37	2,527,026	184	13,734	17,656	96	143	1.81
$1937 - 38 \dots$	3,201,153	244	13,119	24,897	102	129	1.74
1938-39	2,564,506	270	9,498	25,954	96	99	1.32
1948-49	1,844,867	191	9,659	18,902	99	98	1.30
1949-50	1,888,968	216	8,745	18,128	84	104	1.46
1950-51	1,909,640	239	7,990	18,554	78	103	1.42
$1951-52\ldots$	2,054,853	263	7,813	16,902	64	122	1.61
$1952 - 53 \dots$	1,884,207	230	8,192	17,101	74	110	1.53
1953-54	1,964,994	206	9,539	15,630	76	126	1.82
1954-55	1,780,067	233	7,640	16,619	71	107	1.73
$1955 - 56 \dots$	1,797,069	257	6,992	14,893	58	121	1.92
1956-57	1,883,961	225	8,373	15,429	69	122	1.85
1957-58	1,845,147	237	7,785	16,344	69	113	1.82
1958-59	1,798,447	235	7,653	16,275	69	111	1.89
1959-60	1,859,375	220	8,452	21,356	97	87	1.52
1960-61	1,915,118	252	7,600	23,998	95	80	1.42
1961-62	1,797,178	261	6,886	29,952	115	60	1.09

<sup>1)</sup> Not including sperm-whales.

Table f.-Whales caught in the pelagic whaling. Percentage figures.

X7		S	pecies of w	hales caugh	t.	
Years.	Blue.	Fin.	Hump- back.	Sei.	Sperm.	Total,
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
1928–29	73.5	23.4	0.2	2.7	0.2	100
1929-30	65.8	31.0	3.1		0.1	100
1930–31	75.6	23.0	1.3		0.1	100
1931–32	82.1	15.4	2.4		0.1	100
1932-33	79.8	19.0	0.7		0.5	100
1933-34	70.9	23.1	3.3		2.7	100
1934–35	52.7	38.6	6.4	0.5	1.8	100
1935–36	56.5	31.4	10.7		1.4	100
1936–37	43.2	40.5	13.6	0.1	2.6	100
1937–38	33.5	59.9	4.6	0.1	1.9	100
1938–39	37.8	53.1	2.4		6.7	100
1939-40	36.7	57.3			6.0	100
1940-41	31.9	45.7	17.3	0.1	5.0	100
1943-44	37.2	62.8				100
1944–45	57.3	42.6		0.1		100
1945-46	30.7	67.4			1.9	100
1946–47	38.5	55.9			5.6	100
1947–48	24.2	67.0			8.8	100
1948-49	26.0	60.4	_		13.6	100
1949–50	21.3	62.2	7.3	0.3	8.9	100
1950-51	22.3	56.1	5.2	1.2	15.2	100
1951–52	15.7	63.0	4.8	0.1	16.4	100
1952–53	13.7	74.8	3.4	0.4	7.7	100
1953–54	8.6	80.0	1.9	0.8	8.7	100
1954–55	6.3	75.3	1.4	0.4	16.6	100
1955–56	4.5	71.3	4.0	0.8	19.4	100
1956–57	4.6	78.0	2.0	2.2	13.2	100
1957–58	4.7	70.1	1.1	6.6	17.5	100
1958–59	3.3	71.2	6.6	3.9	15.0	100
1959-60	3.4	72.6	3.7	8.9	11.4	100
1960-61	4.5	70.5	1.9	11.1	12.0	100
1961–62	3.0	70.8	0.8	12.7	12.7	100

The pelagic catch in blue-whale units in the season 1961–62 was apportioned among the participating countries as follows:

Japan	6,574.2	blue-whale units
Norway	3,701.6	))
U. S. S. R	3,292.3	
United Kingdom	1,069.7	»
The Netherlands	614.8	»

 ${\bf Total\ 15,252.6\ blue-whale\ units}$ 

In 1961–62 the pelagic expeditions processed 15,215.8 blue-whale units, from which were produced 1,797,178 barrels whale-oil. From 4,723 sperm-whales there were produced 204,783 barrels sperm-oil.

The total whaling results in the Antarctic from 1919-20 up to and including 1961-62 are given in table c, page 13. In table d, page 15, the *pelagic* results during the same period have been recorded separately.

Table g.-Antarctic, pelagic whaling. Catch by months in absolute figures.

1 abi	e g.—Antarc	tic, pera	igic with	tillig. C	accii by	monen	3 111 a	psolute 118	gur es.
	es of whales, l seasons.	Nov.	Dec.	Jan.	Feb.	March.	April.	Total.	The Whan- ing Statis- tics' total figures.
Total animals.	1938-39 1953-54 1954-55 1955-56 1956-57 1957-58 1958-59 1959-60 1960-61 1961-62	1,362 141 424 665 373 1,259 731 359 1,086 1,356	10,138 1,875 3,480 4,183 2,753 3,669 3,477 4,464 4,104 5,431	12,618 12,320 12,842 13,813 11,483 11,428 12,628 12,917 12,445 10,135	9,978 10,295 11,401 14,750 14,000 11,886 12,800 10,710 11,491 9,458	2,569 6,239 5,914 1,846 4,114 7,575 6,453 6,584 8,559 9,857	- - - - - - 1,144 996 985	1) 36,665 30,870 34,061 35,257 32,723 35,817 36,089 36,178 38,681 37,222	1) 36,681 31,215 34,388 35,489 32,941 35,997 36,261 36,355 38,808 37,357
Blue- whales.	$ \begin{cases} 1938-39 \\ 1953-54 \\ 1954-55 \\ 1955-56 \\ 1956-57 \\ 1957-58 \\ 1958-59 \\ 1959-60 \\ 1960-61 \\ 1961-62 \\ . \end{cases} $	849 1 - - - - - -	5,128 1 - 1 1 1 - 2 1	4,892 567 645 1 1 - - 1	2,365 1,365 965 1,503 1,178 1,476 780 485 1,267 690	$407 \\ 716 \\ 457$	- - - - - 25 14 106	13,839 2,668 2,154 1,611 1,505 1,683 1,187 1,228 1,739 1,116	13,849 2,684 2,163 1,611 1,505 1,684 1,191 1,230 1,740 1,118
Fin- whales.	$ \begin{cases} 1938-39 \dots \\ 1953-54 \dots \\ 1954-55 \dots \\ 1955-56 \dots \\ 1956-57 \dots \\ 1957-58 \dots \\ 1958-59 \dots \\ 1959-60 \dots \\ 1960-61 \dots \\ 1961-62 \dots \end{cases} $	64 - - - - - 2 73	3,608 9 5 1 3 6 7 1,892 2,074 4,100	6,956 11,411 11,128 12,733 10,777 10,746 11,818 10,721 10,714 8,408	7,057 8,001 9,521 11,047 11,345 8.805 8,615 8,153 7,871 7,002	5,510 5,247 4,579 5,983	924 584 207	19,477 24,675 25,608 25,102 25,502 25,667 25,687 26,271 27,299 26,364	19,477 24,986 25,878 25,289 25,700 25,222 25,837 26,415 27,374 26,438
Hump- backs.	$ \begin{cases} 1938-39 \dots \\ 1953-54 \dots \\ 1954-55 \dots \\ 1955-56 \dots \\ 1956-57 \dots \\ 1957-58 \dots \\ 1958-59 \dots \\ 1959-60 \dots \\ 1960-61 \dots \\ 1961-62 \dots \end{cases} $	134 - - - - - - - -	456 -3 2 	235 - 2 2 - 1 - 1,257 698 306	58 587 487 1,421 673 395 2,393 74	6 1		883 593 492 1,425 673 396 2,393 1,332 709 309	883 594 493 1,432 679 396 2,394 1,338 718 309
Sei- whales.	$ \begin{cases} 1938-39 \dots \\ 1953-54 \dots \\ 1954-55 \dots \\ 1955-56 \dots \\ 1956-57 \dots \\ 1957-58 \dots \\ 1958-59 \dots \\ 1959-60 \dots \\ 1960-61 \dots \\ 1961-62 \dots \end{cases} $	- - - - - - -	- - - - - 22 4 198	60 7 13 83 46 205 556 602 598	147 95 201 428 681 586 1,532 1,901	43 60 197 1,648 6 603 2 1,010 1,583		1) 4 249 145 274 708 2,375 1,394 3,219 4,280 4,716	1) 4 251 146 276 712 2,385 1,402 3,234 4,310 4,749
Sperm- whales.	1938-39 1953-54 1954-55 1955-56 1956-57 1957-58 1958-59 1959-60 1960-61 1961-62	315 141 424 665 373 1,259 731 357 1,013 1,356	946 1,865 3,472 4,179 2,749 3,662 3,470 2,548 2,018 1,132	383 431	195 333 578 376 529 426 466 448	203 373 359 3 215 212 3 196 5 278 5 536	- - - - 96 208	2,462 2,686 5,662 6,845 4,335 6,296 5,428 4,128 4,654 4,717	2,468 2,700 5,708 6,881 4,345 6,310 5,437 4,138 4,666 4,743

<sup>1) 1</sup> right-whale included.

Table h.—Antarctic, pelagic whaling. Catch by months in percentage figures.

	of whales.	Nov.	Dec.	Jan.	Feb.	March.	April.	Total.	The Whaling Statistics' total figures.
Total animals	1938-39 1953-54	100.0	100.0	100.0 100.0	100.0	100.0	100.0 100.0	100.0 100.0	100.0 100.0
Blue- whales	1938-39 1953-54 1954-55 1955-56 1956-57 1957-58 1958-59 1959-60 1960-61 1961-62	62.4	50.6 0.1 - - - - -	38.8 4.6 5.0	23.7 13.3 8.5 10.2 8.4 12.4 6.1 4.5 11.0 7.3	23.6 11.8 9.2 5.7 7.9 2.7 6.3 10.9 5.3 3.2	2.2 1.4 10.8	37.8 8.7 6.3 4.6 4.6 4.7 3.3 3.4 4.5 3.0	37.8 8.6 6.3 4.5 4.6 4.7 3.3 3.4 4.5 3.0
Fin- whales	1938-39 1953-54 1954-55 1955-56 1956-57 1957-58 1958-59 1959-60 1960-61 1961-62	4.7 1.5 - - - 0.6 6.7	$35.6 \\ 0.5 \\ 0.1 \\ - \\ 0.1 \\ 0.2 \\ 0.2 \\ 42.4 \\ 50.5 \\ 75.5$	55.1 92.6 86.6 92.2 93.9 94.0 93.6 83.0 86.1 83.0	70.7 77.7 83.5 74.9 81.0 74.1 67.3 76.1 68.5 74.0	69.8 84.2 83.8 71.6 82.1 72.7 81.3 69.5 69.9 67.4	80.8 58.6 21.0	53.1 79.9 75.2 71.2 77.9 70.0 71.2 72.6 70.6 70.8	53.1 80.0 75.3 71.3 78.0 70.1 71.2 72.6 70.5 70.8
Hump- backs	1938-39 1953-54 1954-55 1955-56 1956-57 1957-58 1958-59 1959-60 1960-61 1961-62	9.8	4.5 -0.1 0.1 -1 - - - 0,2	1.9 - - - 9.7 5.6 3.0	0.6 5.7 4.3 9.6 4.8 3.3 18.7 0.7	0.1	0.2	2.4 1.9 1.5 4.0 2.1 1.1 6.6 3.7 1.8 0.8	2.4 1.9 1.4 4.0 2.0 1.1 6.6 3.7 1.9 0.8
Sei- whales	1938-39 1953-54 1954-55 1955-56 1956-57 1957-58 1958-59 1959-60 1960-61 1961-62	-	- - - - 0.5 0.1 3.6	0.5 0.1 0.1 0.7 0.4 1.6 4.3 4.8 5.9	1.4 0.8 1.4 3.1 5.7 4.6 14.3 16.5 14.1	0.1 0.7 0.7 3.3 4.8 21.8 9.4 15.3 18.5 22.8	8.6 19.1 34.7	0.8 0.4 0.8 2.2 6.6 3.9 8.9 11.1 12.7	0.8 0.4 0.8 2.2 6.6 3.9 8.9 11.1 12.7
Sperm- whales	1938-39 1953-54 1954-55 1955-56 1956-57 1957-58 1958-59 1959-60 1960-61 1961-62	23.1 100.0 100.0 100.0 100.0 100.0 100.0 99.4 93.3 100.0	9.3 99.4 99.8 99.9 99.9 99.8 99.8 57.1 49.2 20.9	4.2 2.3 8.3 7.7 5.4 5.6 4.8 3.0 3.5 8.1	5.0 1.9 2.9 3.9 2.7 4.5 3.3 4.4 3.9 4.6	6.5 3.3 6.3 19.4 5.2 2.8 3.0 4.2 6.3 6.6	- - - 8.4 20.9 33.3	6.7 8.7 16.6 19.4 13.2 17.6 15.0 11.4 12.0 12.7	6.7 8.7 16.6 19.4 13.2 17.5 15.0 11.4 12.0

In the season 1961–62 a total of 1,118 blue-whales were killed by the pelagic expeditions as compared with 1,740 in 1960–61 and 1,230 in 1959–60. Of these catches a number of about 360 blue-whales in 1961–62, about 1,100 blue-whales in 1960–61 and about 250 blue-whales in 1959–60 were taken in the waters between 40° and 50° South. In the fields south of 50° South the catch of blue-whales in 1961–62 amounted to about 750, as compared with about 600 in 1960–61 and about 1,000 in 1959–60.

The catch of fin-whales in 1961–62 amounted to 26,438 animals as compared with 27,374 in the preceding season. The catch of fin-whales in the season 1960–61 was, however, the largest ever recorded in one single season. The catch of humpbacks has declined considerably since the season 1958–59, when 2,394 humpbacks were killed. In 1959–60 the catch was 1,338, in 1960–61 718 and in 1961–62 309 humpbacks. The sei-whale catch in the season 1961–62 amounted to 4,749 animals, and this was the highest catch ever recorded for one season in the Antarctic pelagic whaling. The catch of sperm-whales last season amounted to 4,743 animals as compared with 4,666 in 1960–61.

Table e, page 16, gives i.a. the average daily production of whale oil per floating factory as well as per catcher. The average daily production per floating factory in 1961–62 amounted to 744 barrels as against 956 and 942 barrels in the two previous seasons. During the seasons 1949/50–1958/59 the corresponding figures have varied between 1,266 and 1,690 barrels.

The average daily production of whale oil per catcher in 1961–62 was only 60 barrels, which is the lowest figure ever recorded in pelagic whaling. During the seasons 1949/50–1958/59 the average daily production per catcher varied between 103 and 126 barrels.

Table f, page 17, illustrates the relation between the various species of whales killed in pelagic operations in the Antarctic from 1928–29. In the season 1961–62 only 3.0 per cent of all whales killed were blue-whales against 4.5 and 3.4 per cent in the two preceding seasons. The fin-whale catch in 1961–62 represented 70.8 per cent. In the two preceding seasons the figures were 70.5 and 72.6 per cent, respectively. During the four last seasons the number of humpbacks killed has declined considerably, from 6.6 per cent in 1958–59 to 3.7 per cent in 1959–60, to 1.9 per cent in 1960–61 and to only 0.8 per cent in the last season. On the other hand, the catch of sei-whales increased from 3.9 per cent in 1958–59 to 8.9, 11.1 and 12,7 per cent, respectively, during the three following seasons. The sperm-whale catch represented 12.7 per cent of all whales killed in 1961–62 against 12.0 per cent in the preceding season.

In the survey on next page is stated the number of blue- and fin-

whales killed and the correlation between the catch of these two most important species of baleen whales during a number of seasons.

During the seasons previous to 1937–38 the predominant species of the baleen whales taken in Antarctic waters were blue-whales. During the seasons 1930–31 and 1932–33 about 80 per cent of the total blue-and finwhale catch were blue-whales, whereas the number of blue-whales killed

Season	Blue-w Number	hales Per cent	Fin-w Number	hales Per cent
1930-31	28,325	76.7	8,601	23.3
1932 - 33	18,624	80.7	4,441	19.3
1936 – 37	14,183	<b>51.</b> 6	13,302	48.4
1937 - 38	14,826	35.9	$26,\!457$	64.1
1938 – 39	13,849	41.6	$19,\!477$	58.4
1947 - 48	6,862	26.5	18,999	73.5
1948-49	$7,\!399$	30.1	17,201	69.9
1949-50	6,168	25.5	18,061	74.5
1950-51	6,966	28.5	$17,\!474$	71.5
1951 - 52	$5,\!124$	20.0	20,520	80.0
1952 – 53	3,866	15.4	21,197	84.6
1953-54	$2,\!684$	9.7	24,986	90.3
1954-55	$2,\!163$	7.7	$25,\!878$	92.3
1955 - 56	1,611	6.0	25,289	94.0
1956-57	1,505	5.5	25,700	94.5
1957 - 58	1,684	6.3	$25,\!222$	93.7
1958-59	1,191	4.4	$25,\!837$	95.6
1959-60	1,230	4.4	26,415	95.6
1960-61	1,740	6.0	$27,\!374$	94.0
1961-62	1,118	4.1	$26,\!438$	95.9

during the 2 last seasons represented only about 5 per cent of the total blue- and fin-whale catch. The figures in the survey above do not give a correct picture of the presence of blue-whales at previous and present times. It will appear from the statistics of previous years recorded for pelagic whaling in the Antarctic that the blue-whales occur most frequently during the Antarctic spring months, i.e. October, November and December. Later in the season the fin-whale is more abundant. In order to obtain a larger oil output, the opening day of the pelagic season has gradually been post-poned ever since the early thirties. During post-war seasons the efforts of reducing the taxation of blue-whales have also contributed to this post-ponement of the whaling period. In the seven last seasons, 1955/56–1961/62, the opening day of the blue-whale season was February 1st, while the blue-whale catch in 1932–33 commenced on October 20th.

Table i.—Number and average size of whales caught

	,									
	Species of	Area	II (60° W.	0°)	Area	III (0°-70	° E.)	Area IV	7 (70° E1	30° E.)
	whales.	Number		Average	Number		Average	Number		Average
No.		of	Don cont	size of	of	Don cont	size of	of	Per cent.	size of
	Seasons.	whales	Per cent.	the	whales	Per cent.	the	whales	rer cent.	the
		caught.		whales.	caught.		whales.	caught.		whales
				Eng. ft.			Eng. ft.			Eng. ft.
	Blue-whales.			20.g. 10.						
1	1931/32-1939/40	$^{1})24,101$	19.7	78.9	53,314	43.6	78.3	43,511	35.6	79.9
2	1940/41-1946/47	4,562	31.0	78.2	6,099	41.5	78.3	3,346	22.8	78.1
3	1947-48	1,536	22.5	76.7	1,890		78.6	1,952	28.5	79.4
4	1948-49	2,022	27.4	78.6	2,981	40.4	79.3	1,325	18.0	79.1
5	<b>19</b> 49–50	1,064	17.3	78.4	1,512		78.5	925	15.1	78.9
6	1950-51	1,514	21.9	77.3	1,427	20.6	77.8	1,076	15.5	77.7
7	1951-52	447	8.8	78.2	1,836		79.2	1,199	23.5	77.7
	1952–53					l			$\frac{23.5}{21.8}$	77.0
8		727	18.9	78.9	1,454		77.7	837		
9	1953–54	542	20.3	78.1	1,569		78.2	356	13.4	77.2
10	$1954-55 \dots$	470	21.8	79.0	685		78.1	310	14.4	77.6
11	1955-56	439	27.3	77.1	300		78.8	322	20.0	77.7
12	1956–57	330	21.9	76.9	275	18.3	78.4	80	5.3	78.5
13	1957–58	236	14.0	77.8	620	36.9	77.4	186	11.1	76.7
14	1958–59	57	4.8	80.5	373	31.4	79,0	335	28.2	78.0
15	$1959-60 \dots$	58	4.7	79.2	231	18.8	77.4	403	32.8	73.3
16	1960-61	128	$\tilde{7.4}$	79.7	1.152	66.2	72.6	151	8.7	71.8
17	1961–62	189	16.9	77.6	477	42.8	72.9	97	8.7	74.0
11										
	1931/32-1961/62	38,422	20.4	78.6	76,195	40.5	78.2	56,411	30.0	79.5
	mi b.l									
	Fin-whales.		20.0			00.5	0	20.40	20.2	00.0
1	1931/32-1939/40	(2)39,987	39.3	67.7	39,179		67.5	20,487	20.2	68.3
2	1940/41-1946/47	11,595	51.2	67.1	7,231	31.9	68.0	$3,\!355$	14.8	67.3
3	1947–48	6,136	32.5	68.1	6.483	34.4	67.8	4,654	24.7	67.9
4	$1948-49 \dots$	4,995	29.2	67.4	6,457	37.8	68.5	3,068	18.0	67.4
5	$1949-50 \dots$	7,150	40.0	67.5	5,117	28.6	67.5	2,940	16.5	66.6
6	1950-51	5,081	29.4	66.4	4,133	23.9	66.2	4,210	24.3	66.5
7	1951 -52	5,977	29.4	67.9	7,122	35.1	68.1	2,141	10.5	67.3
8	1952–53	4,551	$\frac{20.1}{21.7}$	68.1	11,364	54.2	67.1	1,449	6.9	66.2
$\tilde{9}$	1953–54	7,653	31.0	67.4	11,459	46.4	67.0	2,195	8.9	67.0
10	1054 55					53.1	66.4	$\frac{2,133}{2,790}$	10.9	66.4
	1954–55	4,963	19.4	67.3	13,607					
11	1955-56	6,619	26.4	66.2	7,088	28.2	66.8	3,208	12.8	66.5
12	1956-57	10,697	41.9	67.4	3,812	15.0	67.2	291	1.1	64.6
13	1957–58	5,211	20.8	67.3	9,197	36.7	66.7	3,579	14.3	65.6
14	1958-59	4,298	16.7	67.1	9,385	36.6	66.4	7,277	28.3	66.5
15	$1959-60 \dots$	4,920	18.7	66.9	9,307	35.4	66.7	6,501	24.8	66.3
16	1960-61	5,223	19.1	66.6	13,269	48.6	67.5	2,086	7.7	65.7
17	1961-62	6,650	25.2	67.5	11,847	44.9	66.7	3,129	11.9	64.8
	1931/32-1961/62	141,706	30.2	67.4	176,057	37.6	67.2	73,360	15.7	67.1
	1001/02 1001/02	111,700			110,001					
	Humpbacks.									
1	1931/32-1940/41	3)1,288	9.3	41.3	6,257	45.3	40.8	6,243	45.2	40.6
2	1946/47-1948/49	6	37.5	44.0	9	1	41.7	1	6.2	45.0
3	1949–50	172	8.2	41.0	251	11.9	41.7	$77\overline{9}$	37.0	40.4
4					i e	1			68.5	40.5
5	1950–51	2	0.1	38.5	20	1.2	38.8	1,112		39.9
	1951–52	33	2.2	42.9	189		42.0	1,127	73.6	
6	$1952-53 \ldots$	14	1.5	44.6	218		41.2	191	20.3	39.1
7	1953-54	13	2.2	41.2	172		41.0	258	43.5	39.3
8	$1954-55 \dots$	2	0.4	42.5	142		41.4	-		
9	1955-56	-	-	-	64	4.5	41.1	824	57.8	39.8
10	1956–57	_	_	- 1	8	1.2	40.8		-	_
11	1957–58	_	_	_	116	29.3	41.0	-	_	-
12	1958-59		_	_	95		42.4	1,796	75.0	39.6
13	1959-60		_		156		41.5	66	5.0	39.6
14	1960–61	3	0.4	37.3	117	16.5	41.1	4	0.6	47.5
15	1961-62	3	1.0	42.7	33		42.1	$5\overline{6}$	18.1	39.6
	1931/32-1961/62	1,536	5.4	41.3	7,847	27.7	40.9	12,457	43.9	40.3
1)	Incl. 608 blue-whales	, length ne	ot stated.	2) Incl.	193 fin-w	hales, leng	th not st	ated. 3) I	ncl. 2 hur	npbacks,

<sup>1)</sup> Incl. 608 blue-whales, length not stated. 2) Incl. 198 fin-whales, length not stated. 3) Incl. 2 humpbacks

# in the different areas of Antarctic. Pelagic whaling.

	80° E		Area VI(170	° W			)° W.			areas		TheWhaling Statistics'	
Number of	Per	Average size of	Number of	Per	Average size of	Number	Per	Average size of	Number of	Per	Average size of	total figures	N
	cent.	the	whales	cent.	the	of whales	cent.	the	whales	cent.	the	for whales	
caught.		whales.	caught.		whales	caught.		whales	caught.		whales.	caught.	
		Eng. ft.			Eng. ft.			Eng. ft.	1		Eng. ft.		
1,326	1.1	79.9	1	_	82.0	10	_	72.9	1)122,263	100	79.0	128,191	
693	4.7	77.6	_	_	_	_	_	_	14,700		78.2	18,552	
1,467	21.4		_	_		_			6,845		78.4	6,862	
1,013	13.8		30	0.4	80.9				7,371		79.1	7,399	1
		1				-	_	-					1
1,494			1,137		79.4		-		6,132		79.0	6,168	1
2,211	31.9		655	9.5	78.8	45	0.6	77.7	6,928		78.2	6,966	
1,462	28.6		157	3.1	77.5		_	-	5,101		78.0	5,124	
512	13.3	76.4	317	8.2	76.9		-	-	3,847	100	77.5	3,866	
83	3.1	78.2	117	4.4	76.7	-	_	-	2,667	100	78.0	2,684	
561	26.0	76.4	128	6.0	77.0		_	_	2,154	100	77.8	2,163	
15	0.9	79.1	281	17.4	76.2	254	15.8	76.3	1,611		77.3	1,611	
	_		i	41.0	76.3		13.5		1,505		77.0	1,505	
76	4.5	76.9		26.1	76.9	125			1,683			1,684	
176	14.9	1		20.7	76.9	120	7.1	10.1	1,187		l	1,191	
391	31.8	1		10.4	l .	18	1.5	78.7	1,228		1	1,230	
	5.2	1 .			76.9								
90				12.2	78.0	5			1,739			1,740	
74	6.6		58	5.2	76.4	221	19.8	78.2	1,116			1,118	
11,644	-6.2	78.5	4,524	2.4	77.8	881	-0.5	77.0	188,077	100	78.7	198,054	_
_								}					
1,993	2.0	1	-	-	-	77	-	64.7	<sup>2</sup> )101,723	100	67.7	108,883	
478	2.1	65.9	-	-		-	-	-	22,659	100	67.4	28,895	ı
1,591	8.4	67.9	-	-	_	-	-		18,864		67.9	18,999	
2,489	14.6	68.2	72	0.4	68.4	_	-		17,081	100	67.9	17,201	
1,664	9.3	67.6	1,005	5.6	69.0	_	_	_	17,876	100	67.5	18,061	
2,198			1,212			462	2.7	68.5	17,296			17,474	
2,768			2,304		67.6	ł .			20,312		1	20,520	
1,709			1,891			1	_	_	20,964		1	21,197	
654			2,616		1		0.4	66.6	24,675			24,986	
3,021	11.8	1	1,227		1	1	0.4	00.0	1 '			25,878	
		1			1		10.4	67.1	25,608				
1,494	1	1	2,585						25,102		4	25,289	
23	1	1 .	5,064		1				25,502		1	25,700	
1,130	1	1	4,107				7.3	66.1	25,067		1	25,222	
2,625			2,102		1		-		25,687			25,837	
4,730	1	1	401						26,271			26,415	
$3,\!174$			3,174	11.6	64.9	373	1.4	65.2	27,299		66.8	27,374	
1,098	4.2	65.5	1,120	4.2	64.9	2,520	9.6	66.0	26,364	100	66.5	26,438	١
32,839	7.0	66.9	28,880	6.2	66.1	15,508	3.3	66.6	468,350	100	67.1	484,369	
28	0.2	40.3	-	-	-	_			(3) 13,816	100	40.7	16,223	
_	-		-	-		-	-		1	3 100	42.8	16	
903	42.9	40.5		-	_				2,105	5 100	40.6	2,117	
162		I.	66	4.1	41.2	269	16.1	41.5	1,624		1	1,630	
146			37	1	_		10.1		1,532		1	1,546	
	1 .		1	1.4							1 .	954	-
	53.6		1				1 -	_		1 100			
14	i			22.9			-	-		3 100		594	
171				35.9			-		492			493	
194	13.6	39.4		23.1					1,425			1,432	
-	-		10				97.3		673			679	
23			167	42.2	41.8	90	22.7	41.9	396		41.5	396	
502	21.0	40.7	-			-			2,393	3 100	40.0	2,394	
931			-		-	179	13.4	41.8	1,332	2 100	40.9	1,338	
	41.	i	210	29.6	41.7		11.6			100		718	
	1	1 20.0		29.8		1				- 1		309	-
		-1	1 91/	1. Z.M. A	411	1 27	14114	42.					
3,872	19 (	40.7	$\frac{92}{1,237}$	-			$\frac{40.4}{5.6}$		$\frac{309}{28,356}$	-	-	4) 30,841	-

length not stated. 4) 2 humpbacks caught in the season 1939/40 are included.

Table j.—Number of whales killed during the seasons 1931/32—1961/62.

Areas	Blue-v	vhales	Fin-v	vhales	Humj	pbacks	Sperm	whales	То	tal
Altas	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
II			141,706		1,536	5.4	16,168		197,832	
III		30.0	176,057 $73,360$ $32,839$	15.7	7,847 $12,457$ $3,872$	27.7 $43.9$ $13.6$	$\begin{array}{c c} 27,341 \\ 16,422 \\ 10.085 \end{array}$	22.2	287,440 158,650 58,440	20.9
VI	4,523 881		28,880 15,508	6.2	1,237 1,407	4.4 5.0	2,171 1,940	2.9	36,811 $19,736$	
Total	188,076	100.0	468,350	100.0	28,356	100.0	74,127	100.0	758,909	100.0

\_ 2 \_

Species	Area	a	Area	III	Area	IV	Area	v	Area	VI	Are	a I	Tot	al
of whales	No. of whales	Per cent												
Blue													188,076	
$\operatorname{Fin}\dots$							32,839	56.2	<b>2</b> 8,880		15,508		468,350	
${f H}$ umpback	1,536	0.8	7,847	2.7	12,457	7.8	3,872	6.6	1,237	3.4	1,407	7.1	28,356	3.7
$Sperm \dots$	16,168	8.2	27,341	9.5	16,422	10.4	10,085	17.3	2,171	5.9	1,940	9.8	74,127	9.8
Total	197,832	100.0	287,440	100.0	158,650	100.0	58,440	100.0	36,811	100.0	19,736	100.0	758,909	100.0

In tables g and h, pages 18 and 19, the monthly catch of the various species of whales is recorded in absolute and percentage figures for a series of years. These figures and the corresponding figures for the preceding post-war seasons show that the blue-whale catch in each month during the post-war seasons has represented an ever smaller part of the total catch. Most of the figures are, however, to some extent influenced by the above mentioned postponement and curtailment of the whaling period. Only the month of January during the seasons up to and including 1952-53 and the month of February during all seasons have been unaffected by the postponement of the whaling period, but also here the percentage figures for the blue-whale catch show a marked decrease.

The survey on next page gives a more correct basis of comparison between the blue-whale catch of later and previous years, showing the percentage proportion of blue-whales in relation to the total blue- and fin whale catch during the period February 1st (incl.)—March 4th (incl.) for each season since 1931–32. During the said period whaling operations have been carried on at full capacity throughout all the seasons.

Season	Blue-whales in per cent of all blue- and fin-whales killed Febr. 1st—March 4th	Season Blue-whales in per cent of all blue- and fin-whales killed Febr. 1st—March 4th
1931-32	$\dots$ 61.9	$1949-50 \dots 25.7$
1932-33	$\dots$ 50.3	$1950-51 \dots 28.7$
1933 - 34	46.6	$1951-52 \dots 25.9$
1934-35	38.4	$1952-53 \dots 14.0$
1935 – 36	$\dots$ 50.8	$1953-54 \dots 14.0$
1936-37	$\dots$ 29.9	$1954-55 \dots 9.5$
1937–38	$\dots$ 16.5	$1955-56 \dots 11.5$
1938-39	$\dots$ 24.5	$1956-57 \dots 9.4$
1945-46	31.9	$1957-58 \dots 13.5$
1946-47	31.9	$1958-59 \dots 7.8$
1947 - 48	$3 \ldots 22.9$	$1959-60 \dots 5.7$
1948-49	$\dots$ 25.2	$1960-61 \dots 13.5$
		$1961-62 \dots 8.6$

While the percentage proportion of blue-whales in relation to the total blue- and fin-whale catch varied between 31.9 per cent and 22.9 per cent during the post-war seasons until and including 1951–52, there has been a strongly reduced blue-whale catch during the latest seasons. In 1959–60 the percentage proportion of blue-whales reached a minimum figure of 5.7. In 1960–61 it increased to 13.5, but decreased again in 1961–62 to 8.6.

#### Catch in the different areas.

For the purpose of obtaining more detailed information on the pelagic activities in the Antarctic the area round the South Pole cap has been divided into the following 6 areas:—

Area	$\mathbf{I}$	between	$60^{\circ}$	west	and	$120^{\circ}$	west
,,	$\mathbf{II}$	,,	$0^{\circ}$		,,	$60^{\circ}$	"
,,	III	,,	$0^{\circ}$		"	$70^{\circ}$	east
,,	IV	,,	$70^{\circ}$	east	"	$130^{\circ}$	,,
,,	$\mathbf{V}$	,,	$130^{\circ}$	,,	"	$170^{\circ}$	west
"	VI	,,	$170^{\circ}$	west	,,	$120^{\circ}$	,,

From the survey on the next page will be seen the whaling results in the individual areas during the three latest seasons.

Table k.—Average size of whales killed in the Antarctic, by whaling grounds and species of whales 1938/39 and 1951/52—1961/62.

Whaling grounds and species of whales.	1938 -39	1951 -52	1952 -53	1953 -54	1954 -55	1955 -56	1956 -57	1957 -58	1958 -59	1959 -60	1960 -61	1961 -62
Pelagic whaling.	Engl. feet.	Engl. feet.	Engl. feet.	Engl. feet.	Engl. feet.	Engl feet.	Engi. feet.	Engl. feet.	Engl. feet.	Engi feet.	Engl. feet.	Engl. feet.
$Blue ext{-}whales.$												
Males	76.6					75.6				74.5		73.8
Females	79.5		79.1	79.6	79.5	78.9	78.4	79.0		77.0		76.7
Total animals	78.0	78.0	77.5	78.0	77.8	77.3	77.0	77.1	78.3	75.9	74.0	75.3
$Fin\mbox{-}whales.$												
Males	65.7		65.7	65.6	65.1	65.1	65.3	64.7		65 0		64.4
Females	68.9				68.0	68.1	68.6		67.8	68.1	68.4	68.2
Total animals	67.2	67.9	67.3	67.1	66.5	66.5	66.9	66.2	66.3	66.6	66.8	66.5
Hump backs.												
Males	37.7				39.9	39.0				39.8		40.4
Females	40.5				41.8	40.7	42.1	42.1	40.7	41.8		41.9
Total animals	39.6	40.4	40.9	<b>4</b> 0.3	41.1	40.0	41.4	41.5	40.0	40.9	41.4	41.4
Sei-whales.												
Males			49.6	47.0	44.9	48.5	48.7	48.3	48.8	48.7	48.6	48.7
Females	56.0					51.3		51.3		51.3		51.3
Total animals	51.0	51.0	51.6	49.2	46.5	50.4	50.4	50.3	50.8	50.5	50.2	50.3
Sperm-whates.												
Males	52.8	49.9	49.9	49.2	48.9	48.4	48.7	47.5	47.2	47.3	46.8	46.3
Females		_	-	-	_	_	-	36.5		39.0	1	41.0
Total animals	52.8	49.9	49.9	49.2	48.9	48.4	48.7	47.5	47.2	47.3	46.8	46.3
South Georgia.												
Blue-whales, total	75.8	72.0	74.0	73.3	73.0	81.3	71.7	74.5	64.0	73.0	72.8	
Fin-whales, total						65.0			65.9		64.0	62.9
Humpbacks, total	-				40.0		_	_	-	_	-	_
Sei-whales, total		1									1	
Sperm-whales, total	50.3	48.1	46.7	47.0	48.7	46.8	45.7	47.1	46.5	47.6	46.9	46.7

3						
	Number	$\mathbf{Per}\ \mathbf{c}\mathbf{ent}$	$\mathbf{Number}$	Per cent	Number	Per cent
l <b></b>	15,421	100.0	16,375	100.0	15,229	100.0
hich in:						
II	$2,\!585$	16.8	2,929	17.9	3,729	24.5
$\mathbf{III}.\dots\dots\dots$	4,983	32.3	7,885	48.1	6,488	42.6
IV	3,765	24.4	1,211	7.4	1,792	11.8
V	3,401	22.0	1,887	11.5	693	4.5
VI	365	2.4	2,222	13.6	718	4.7
I	322	2.1	241	1.5	1,809	11,9
	Thich in:  II	II. 2,585 III. 4,983 IV. 3,765 V. 3,401 VI. 365	Number Per cent 15,421 100.0 Phich in:  II. 2,585 16.8 III. 4,983 32.3 IV. 3,765 24.4 V. 3,401 22.0 VI. 365 2.4	units 1959-60     units 1959-60       Number     Per cent     Number       1     15,421     100.0     16,375       chich in:     III.     2,585     16.8     2,929       III.     4,983     32.3     7,885       IV.     3,765     24.4     1,211       V.     3,401     22.0     1,887       VI.     365     2.4     2,222	In the late of the	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

Also in the season 1961–62 the most favourable whaling results were obtained in Areas II and III, viz. 10,200 blue-whale units, or about 67 per cent of the total catch. In this connection it may be mentioned that from the season 1945–46 inclusive, 60 per cent of the total catch has been obtained in those areas. In Areas V and VI the whaling operations resulted

Table I.—Average size of whales killed, by species and sex 1938/39 and 1951/52—1961/62, excl. of blue-whales less than 70', fin-whales less than 60' and humpbacks less than 35'. Antarctic, pelagic whaling.

Species of whales.	1938 -39	1951 -52	1952 —53	1953 -54	1954 -55	1955 -56	1956 -57	1957 -58	1958 -59	1959 -60	1960 -61	1961 -62
Blue-whales.	Engl. feet.	Engl. feet.	Engl. feet.	Engl. feet.	Engl. feet.	Engl. feet.	Engl. feet.	Engl.	Engl. feet.	Engl.	Engl. feet.	Engl. feet.
Males	77.3	77.1	76.3	76.4	76.1	76.1	76.3	75.8	76.3	74.9	73.1	74.1
Females	80.3	80.1	79.5	80.1	80.0	79.4	79.0	79.4	80.6	77.5	75.5	76.9
Total animals.	78.8	78.6	78.0	78.5	78.2	77.9	77.5	77.6	78.7	76.3	74.3	75.7
Fin-whales. Males Females Total animals.	66.5 69.8 68.1	66.7 69.7 68.1	66.0 69.1 67.6	65.9 69.0 67.4	68.9	68.3	66.2 69.6 67.9	65.8 69.0 67.5	69.0	69.3	66.2 69.5 67.9	66.0 69.8 68.1
Humpbacks. Males Females Total animals.	38.1 40.8 40.0	39.6 41.7 40.7	39.7 42.2 41.1	39.7 $41.3$ $40.5$	40.0 41.9 41.1		40.8 42.3 41.6	40.9 42.3 41.6			40.6 $42.3$ $41.4$	40.4 42.0 41.4

in about 1,400 blue-whale units, or 9.2 per cent of the total catch, as compared with some 4,000 units or 25 per cent in the season 1960–61. In Area I (part of the previously closed sector) the catch amounted to 1,809 units, corresponding to 11.9 per cent of the total catch. Apart from the seasons 1955–56 and 1956–57 the result in the season 1961–62 was the largest ever recorded in this area.

In the previously closed sector (between 70° West and 160° West) the whaling operations resulted in a total of 2,068 units. During the 7 seasons, in which this sector has been open for pelagic catch, the results obtained have been as follows:

Season	Catch in blue-whale units	Per cent of total catch
1955–56	3,682	24.9
1956–57	5,804	39.7
1957–58	3,687	25.0
1958–59	1,188	7.8
1959–60	402	2.6
1960-61	2,009	12.3
1961–62	2,068	13.5
$\overline{ ext{Total}}$	18,840	17.7

Table i, page 22, records the number and average size of blue-whales, fin-whales and humpbacks killed in the above mentioned areas for a series of years. In the last season, 1961-62, the largest number of blue-whales was killed in Area III, viz. 477 animals or 42.8 per cent of the total blue-whale catch. Next comes Area I with a catch of 221 blue-whales or 19.8 per cent.

The largest fin-whale catch in 1961–62 took place in Area III, where 11,847 animals or 44.9 per cent were caught.

The largest number of humpbacks was killed in Area I with a total catch of 125 animals or 40.4 per cent. In Area VI 92 humpbacks or 29.8 per cent were caught.

The total number and percentage proportion of sei- and sperm-whales killed in the season 1961–62 was as follows:

Area	Sei-whales caug Number	ht in 1961–62 Per cent	Sperm-whales ca Number	ught in 1961-62 Per cent
II	1,249	26.5	2,017	42.8
III	427	9.1	1,565	33.2
IV	633	13.4	578	12.2
V	409	8.7	362	7.7
VI	369	7.8	46	1.0
I	1,629	34.5	149	3.1
Total	4,716	100.0	4,717	100.0

Table j, page 24, contains a summary of the number of whales killed by species in each area during the period 1931/32-1961/62. Of a total catch of 188,076 blue-whales during this period, 76,195 or 40.5 per cent have been taken in Area III. Next comes Area IV with a catch of 56,411 animals or 30.0 per cent. Of a total catch of 468,350 fin-whales, 176,057 or 37.6 per cent have been killed in Area III. In Area II, 141,706 fin-whales or 30.2 per cent were caught.

During the same period the total catch of humpbacks amounted to 28,356 animals, of which 12,457 or 43.9 per cent have been taken in Area IV.

## Average size of the whales killed.

Table k, page 26, gives the average size of whales killed in the pelagic whaling operations and from South Georgia in the seasons 1938/39 and 1951/52-1961/62.

The average size of the blue-whales killed last season was 75.3 feet, which is an increase of 1.3 feet as compared with 1960–61, but a decline of 3.0 feet as compared with blue-whales taken in 1958–59. For fin-whales killed the average size was 66.5 feet, or approximately the same as in all seasons from 1954–55 inclusive. The average size of the humpbacks was the same as in the season 1960–61, namely 41.4 feet. The sei-whales killed had an average size of 50.3 feet or approximately the same as in the seasons from and including 1955–56, whereas the average size of the sperm-whales showed a decline from 46.8 feet in 1960–61 to 46.3 feet last season. In 1938–39 the average size of sperm-whales was 52.8 feet.

Table m.—Antarctic, pelagic whaling. Catch of immature and mature whales 1938/39 and 1953/54—1961/62.

	1			•		٥.								/		/-				
	1938-	<del>-39.</del>	1953-	-54.	1954-	-55.	1955-	-56.	1956-	-57.	1957-	-58. 	1958-	-59.	1959-	-60.	1960-	-61.	1961	62.
	Number of whales.	Per cent.	Number of whales.	Per cent.	Number of whales.	Per cent.	Number of whales.	Per cent.	Number of whales.	Per cent.										
Blue-whales.										•										
Immature																				
${ m males}$	1,940		409			37.4	289	37.4	268	33.7	316	36.9	175	33.0	267	465	618	71.3	310	61.0
$females \dots$	2,343		564	39.0	439	38.0	352	42.0	312	44.0	332	40.2	219	33.3	351	56.7	629	72.1	347	57.1
${ m animals}\dots$	4,283	30.9	973	36.5	813	37.7	641	39.8	580	38,5	648	38.5	394	33.2	618	50.3	1,247	71.7	657	58.9
Mature																				1
males	5,034	72.2	811	66.5		62.6	484	62.6		66.3	541	63.1	355	67.0	307	53.5	249	28.7	198	39.0
$females \dots$	4,522	65.9		61.0	715	62.0	486	58.0	397	56.0	494	59.8	438	66.7	303	43.3	243	27.9	261	42.9
animals $\dots$	9,556	69.1	1,694	63.5	1,341	62.3	970	60.2	925	61.5	1,035	61 5	793	66.8	610	49.7	492	28.3	459	41.1
Fin-whales.																				
Immature																				1
${ m males}$	2,097	20.2			3,348	26.3	3,169	24.7	3.089	23.9	3,629	30.0	3,654	28.9	3,445	27.0	3,575	27.4	4,083	34.3
females	2,039	22.4	2,802	23.4	3,645	28.2	3,269	26.7	3.281	26.1	4,052	31.3	4,041	31.0	3,816	28.2	3,996	28.1	4,335	30.0
animals	4,136	21.2	5,395	21.9	6,993	27.3	6,438	25.7	6.370	25.0	7,681	30.6	7,695	30.0	7,261	27.6	7,571	27.7	8,418	31.9
Mature							A A Company of the Co													
males	8,297		10,106			73.7	9,688	75.3		76.1	8,484	70.0	8,976	71.1	9,290		9,494	72.6	7,816	65.7
females	7,044	77.6	9,174	76.6	9,257	71.8	8,976	73.3	9.297	73.9	8,902	68.7	9,016	69.0	9,720	71.8	10,234	71.9	10,130	70.0
animals	15,341	78.8	19,280	78.1	18,615	72.7	18,664	74.3	19.132	75.0	17,386	69.4	17,992	70.0	19,010	72.4	19,728	72.3	17,946	68.1
Humpbacks.																				1
Immature																				1
males	182	69.2	159	52.1	87	43.5	341	56.9	85	26.1	58	30.9	658	57.2	271	47.7	140	37.8	40	35.7
$females \dots$	310	50.0	132	45.8	107	36.6	392	47.5	102	29.4	63	30.3	607	48.8	287	37.6	109	32.2	64	32.5
${ m animals}\dots$	492	55.7	291	49.1	194	39.4	733	51.4	187	27.8	121	30.6	1,265	52.9	558	41.9	249	35.1	104	33.7
Mature																				
males	81					56.5	258	43.1	241	73.9	130	69.1	492	42.8	297	52.3	230	62.2	72	64.3
females	310					63.4	434	52.5	245	70.6	145	69.7	636	51.2	477	62.4	230	67.8	133	67.5
animals	391	44.3	302	50.9	298	60.6	692	48.6	486	72.2	275	69.4	1,128	47.1	774	58.1	460	64.9	205	66.3

Table n.—Antarctic, pelagic whaling results for the various countries 1938/39 and 1950/51—1961/62.

	A	ll countries			Norway		Unit	ted Kingdom		Sc	uth Africa		Japan		
Seasons	Number of whales killed	Oil production	Catchers employed	Number of whales killed	Oil production	Catchers	Number of whales killed	Oil production	Catchers	Number of whales killed	Oil production	Catchers employed	Number of whales killed	Oil production	Catchers employed
		Barrels1			Barrels			Barrels			Barrels			Barrels	
1938-39	36,681	2,709,281	270	<sup>2</sup> ) 11,521	<sup>3</sup> ) 842,712	90	9,371	746,182	65	1,170	100,945	9	7,540	483,476	49
1950-51	31,180	2,152,498	239	15,873	1,062,260	124	5,177	417,755	43	2,541	161,911	15	2,741	170,596	18
1951-52	32,575	2,334,805	268	14,763	1,088,085	132	5,961	446,262	45	2,494	185,962	16	3,831	259,476	32
1952-53	28,325	1,998,094	230	10,381	767,960	95	6,173	449,215	46	2,460	150,455	16	2,645	207,335	30
1953-54	31,218	2,100,884	206	13,632	963,085	100	6,345	471,138	40	2,226	147.271	13	4,218	252,677	26
1954 55	34,388	2,061,789	233	13,428	809,488	101	6,656	400,870	40	1.696	99,809	13	5,958	366,915	36
1955-56	35,531	2,134,808	257	13,371	788,554	110	6,346	409,701	44	2,184	109,539	15	6,462	408,853	40
1956-57	32,987	2,098,854	225	14,008	955,599	94	5,281	333,967	35	1,596	86,586	10	8,093	492,507	54
1957-58	36,490	2,146,206	237	13,289	853,810	94	5,534	323,472	37	,	-		11,763	627,849	68
1958-59	36,364	2,050.241	235	13 292	796,986	93	4,601	259,723	37	_		_	12,558	646,130	<b>69</b>
1959-60	36,559		220	10,656	655,033	70	4,432	257,368	31		-	_	12,359	617,141	69
1960-61	38,972	2,123,157	252	12,490	743,298	81	3,496	196,472	22			_	13,592	667,350	83
1961-62	37,361	2,001,961	261	9,304	568,768	71	3,130	162,552	22	_	-	_	14,351	735,895	86
		Germany			Panama		United	States of Ame	erica	1	Vetherlands	And water to		U.S.S.R.	
							-			_	Concinanas			C.B.B.II.	
Seasons	Number of whales killed	Oil production	Catchers em ployed	Number of whales killed	Oil production	Catchers employed	Number of whales killed	Oil production	Catchers	1	Oil production	Catchers employed	Number of whales killed	Oil	Catchers
Seasons	Number of whales	Oil	Catchers em ployed	of whales	Oil	Catchers employed	Number of whales	Oil		1	Oil production	Catchers	of whales	Oil production	Catchers
Seasons	Number of whales killed	Oil production	Catchers employed	of whales	Oil production Barrels	Catchers employed	Number of whales	Oil production	Catchers	1	Oil	Catchers	of whales	Oil	Catchers
	Number of whales killed	Oil production		of whales killed	Oil production		Number of whales killed	Oil production		Number of whales killed	Oil production Barrels	_	of whales killed	Oil production  Barrels	_
1938–39	Number of whales killed	Oil production	41	of whales killed	Oil production  Barrels 68,853	8	Number of whales killed	Oil production	Catchers employed	Number of whales killed	Oil production  Barrels - 103,560	12	of whales killed	Oil production  Barrels	Catchers 15
1938–39 1950–51	Number of whales killed	Oil production  Barrels 374,149	41	of whales killed 907 1,497	Oil production  Barrels 68,853 126,522	8 12	Number of whales killed	Oil production  Barrels 92,964	Catchers employed	Number of whales killed - 1,660 1,650	Oil production  Barrels	12 12	of whales killed 1,691 2,468	Oil production  Barrels	15 15
1938–39	Number of whales killed 5,066	Oil production  Barrels 374,149	41	of whales killed 907 1,497 1,408	Oil production  Barrels 68,853 126,522 97,073	8 12 16	Number of whales killed	Oil production  Barrels 92,964	Catchers employed	Number of whales killed - 1,660 1,650 1,575	Oil production  Barrels - 103,560 110,300 103,710	$\begin{array}{ c c c }\hline & - & & \\ & 12 & \\ & 12 & \\ & 12 & \\ & 12 & \\ \end{array}$	of whales killed 1,691 2,468 2,726	Oil production  Barrels	15 15 15
1938–39	Number of whales killed  5,066	Oil production  Barrels 374,149	41 - - -	of whales killed 907 1,497 1,408	Oil production  Barrels 68,853 126,522 97,073 164,150	8 12 16 16	Number of whales killed	Oil production  Barrels 92,964	Catchers   Catchers	Number of whales killed - 1,660 1,650	Oil production  Barrels	$\begin{array}{ c c c } - & & & \\ & 12 & \\ & 12 & \\ & 12 & \\ & 12 & \\ \end{array}$	of whales killed  1,691 2,468 2,726 3,086	Oil production  Barrels  109,894 147,647 155,269 169,117	15 15 15 15
1938–39. 1950–51. 1951–52. 1952–53. 1953–54. 1954–55. 1955–56.	Number of whales killed  5,066	Oil production  Barrels 374,149	41  -  -  -  -	907 1,497 1,408 2,365	Oil production  Barrels 68,853 126,522 97,073	8 12 16 16	Number of whales killed	Oil production  Barrels 92,964	Catchers   Catchers	Number of whales killed  1,660 1,650 1,575 1,711	Oil production  Barrels  - 103,560 110,300 103,710 97,596 64,739	$\begin{array}{ c c c }\hline & - \\ & 12 \\ & 12 \\ & 12 \\ & 12 \\ & 12 \\ & 12 \\ \end{array}$	of whales killed  1,691 2,468 2,726 3,086 3,290	Oil production  Barrels  109,894 147,647 155,269 169,117 172,088	15 15 15 15 15
1938–39	Number of whales killed  5,066	Oil production  Barrels 374,149	41 - - - - -	of whales killed 907 1,497 1,498 2,365 - 2,512	Oil production  Barrels 68,853 126,522 97,073 164,150 - 147,880	8 12 16 16 -	Number of whales killed	Oil production  Barrels 92,964	Catchers employed	Number of whales killed  1,660 1,650 1,575 1,711 848 1,665	Oil production  Barrels	$\begin{array}{ c c c } - & & & \\ & 12 & \\ & 12 & \\ & 12 & \\ & 12 & \\ \end{array}$	of whales killed  1,691 2,468 2,726 3,086 3,290 2,773	Oil production  Barrels  109,894 147,647 155,269 169,117	15 15 15 15 15 15
1938–39	Number of whales killed  5,066	Oil production  Barrels 374,149	41 - - - - -	907 1,497 1,408 2,365 - 2,512 2,730	Oil production  Barrels 68,853 126,522 97,073 164,150 - 147,880	8 12 16 16 - 16 15	Number of whales killed	Oil production  Barrels 92,964	Catchers employed	Number of whales killed - 1,660 1,650 1,575 1,711 848	Oil production  Barrels	$\begin{array}{ c c c }\hline & - \\ & 12 \\ & 12 \\ & 12 \\ & 12 \\ & 12 \\ & 18 \\ \end{array}$	1,691 2,468 2,726 3,086 3,290 2,773 2,600	Oil production  Barrels  109,894 147,647 155,269 169,117 172,088 153,736	15 15 15 15 15 15 15
1938–39. 1950–51. 1951–52. 1952–53. 1953–54. 1954–55. 1955–56. 1956–57. 1957–58. 1958–59.	Number of whales killed  5,066	Oil production  Barrels 374,149	41 - - - - -	907 1,497 1,408 2,365 - 2,512 2,730	Oil production  Barrels 68,853 126,522 97,073 164,150 - 147,880	8 12 16 16 - 16 15	Number of whales killed	Oil production  Barrels 92,964	Catchers employed	Number of whales killed - 1,660 1,650 1,575 1,711 848 1,665 1,409	Oil production  Barrels	12 12 12 12 12 12 12 18 14	1,691 2,468 2,726 3,086 3,290 2,773 2,600 4,037	Oil production  Barrels	15 15 15 15 15 15 15 18 24
1938-39. 1950-51. 1951-52. 1952-53. 1953-54. 1954-55. 1955-56. 1956-57. 1957-58. 1958-59. 1959-60.	Number of whales killed  5,066	Oil production  Barrels 374,149	41	907 1,497 1,408 2,365 - 2,512 2,730	Oil production  Barrels 68,853 126,522 97,073 164,150 - 147,880	8 12 16 16 16 - 16 15	Number of whales killed	Oil production  Barrels 92,964	Catchers employed	Number of whales killed	Oil production  Barrels  103,560 110,300 103,710 97,596 64,739 103,465 92,489 116,497	12 12 12 12 12 12 12 18 14 14 14	of whales killed  1,691 2,468 2,726 3,086 3,290 2,773 2,600 4,037 3,687	Oil production  Barrels	15 15 15 15 15 15 15 18 24 24
1938-39. 1950-51. 1951-52. 1952-53. 1953-54. 1954-55. 1956-56. 1956-57. 1957-58. 1958-59. 1959-60. 1960-61.	Number of whales killed  5,066	Oil production  Barrels 374,149	41	907 1,497 1,408 2,365 - 2,512 2,730	Oil production  Barrels 68,853 126,522 97,073 164,150 - 147,880	8 12 16 16 - 16 15 -	Number of whales killed  1,106	Oil production  Barrels 92,964	Catchers employed	Number of whales killed  1,660 1,650 1,575 1,711 848 1,665 1,409 1,867 2,226	Barrels  103,560 110,300 103,710 97,596 64,739 103,465 92,489 116,497 126,488	12 12 12 12 12 12 12 14 14 14 12 13	of whales killed  1,691 2,468 2,726 3,086 3,290 2,773 2,600 4,037 3,687 7,031	Oil production  Barrels  109,894 147,647 155,269 169,117 172,088 153,736 137,706 224,578 220,914	15 15 15 15 15 15 15 18 24 24 37
1938-39. 1950-51. 1951-52. 1952-53. 1953-54. 1954-55. 1955-56. 1956-57. 1957-58. 1958-59. 1959-60.	Number of whales killed  5,066	Oil production  Barrels 374,149	41	907 1,497 1,408 2,365 - 2,512 2,730	Oil production  Barrels 68,853 126,522 97,073 164,150 - 147,880	8 12 16 16 - 16 15 -	Number of whales killed  1,106	Oil production  Barrels 92,964	Catchers Catchers employed	Number of whales killed  1,660 1,650 1,575 1,711 848 1,665 1,409 1,867 2,226 2,081	Oil production  Barrels	12 12 12 12 12 12 18 14 14 12 13	of whales killed  1,691 2,468 2,726 3,086 3,290 2,773 2,600 4,037 7,031 7,182	Oil production  Barrels  109,894 147,647 155,269 169,117 172,088 153,736 137,706 224,578 220,914 378,300	15 15 15 15 15 15 15 18 24 24 37

<sup>1)</sup> Barrel = 170 kg. (Barrel = abt. 1/6 long ton. 1 long ton = 1,016 kg.) 2) Including the catch of two Norwegian expeditions hired by Germany, in 1938-39 1,658 whales. 3) Incl. the production of two Norwegian expeditions hired by Germany, in 1938-39 118,380 barrels.

Table o.-South Georgia.

			Species o	f whale	s caught					E	xpedition	s.	Number
Years.	Blue.	Fin.	Hump- back.	Sei.	Sperm.	Othe	rs.	Total of whales.	Oil production.	Shore sta- tions.	Float- ing fac- tories.	Catch- ers.	of whales per boat.
1010 00		- 0-0							Barrels.	_			
1919-20	987	1,673	79	71	8	1)	14	2,832	147,029	6	-	26	109
1920-21	856	2,643	103	36	31	1)	13		177,137	5	-	21	175
1921-22	2,570	710	9	103	3		-	3,395	249,042	5	_	20	170
1922-23	3,569	1,445	320	10	19		-	5,363	347,553	5	1	23	233
1923-24	1,927	1,378	130	191	49		-	3,675	247,463	5	1	23	160
1924-25	3,512	2,019	262	1	24		_	5,818	406,176	5	1	24	242
1925–26	1,855	5,709	236	13	12		-	7,825	404,457	5	1	23	340
1926-27	3,689	1,144	-	365	17		_	5,215	417,292	5	1	23	227
1927-28	2,125	1,357	-	95	60		_	3,637	303,480	5	1	23	158
1928-29	1,560	3,130	15	396	31		_	5,132	348,629	5	1	23	223
1929-30	488	3,396	46	216	39	1)	1	4,186	247,963	5	_	27	155
1930-31	1,085	1,416	66	144	24	1)	1	2,736	187,938	5	_	27	101
1931-32	438	1,735	6	16	10		_	2,205	122,205	<b>2</b>	-	12	184
1932 - 33	267	727	-	2	_		-	996	54,583	1	-	6	166
1933 - 34	536	1,728	92		7		_	2,363	132,187	$^2$	_	12	197
1934-35	556	836	37	125	21		_	1,575	108,141	2	_	10	158
1935-36	1,221	520	41	_	3			1,785	143,185	2	_	10	179
1936-37	121	1,079	17	471	70		_	1,758	81,629	<b>2</b>	_	12	147
1937-38	97	1,552	40	155	43		_	1,887	90,266	<b>2</b>	_	12	157
1938-39	232	1,307	-	19	117		_	1,675	111,490	2	_	11	152
1939-40	88	937	-	80	85	1)	1	1.191	64,782	2	_	12	99
1940-41	7	747	_	88	26	′	_	868	44,498	1	_	5	174
1941-42	59	1,189	16	52	109		_	1,425	77,819	$^2$	_	12	119
1942-43	125	776	_	73	24		_	998	50,960	1	_	6	166
1943-44	28	632	4	197	101		_	962	50,001	î		7	137
1944-45	128	987	60	76	45		_	1,296	75,540	ī	_	7	185
1945-46	80	1,456		82	57			1,913	78,877	$\overline{3}$	_	16	120
1946-47	327	1.670		391	133	1)	1	2,550	145,318	3	_	18	142
1947-48	46	2,142	24	609		'	_	2,949	163,398	3	_	21	140
1948-49	226	1,922		562				2,941	172,194	3	_	21	140
1949-50	14	1,999		1,183	157		_	3,379	147,121	3	_	21	161
1950-51	$8\overline{2}$	1,982		519			_	2,817	151,192	3	_	$\frac{21}{21}$	134
1951-52	6	2,007	10	498	141		_	2,662	144,375	3	_	21	127
1952-53	4	1,670	1	498			_	2,328	120,003	3	_	21	111
1953-54	13	2,673	11	778	179		_	3,654	184,836	3	_	21	174
1954-55	13	2,013 $2,746$		423				3,266		3		21	156
1955-56	3	2,669		284				3,200		3	_	21	145
1956-57	7	2,005 $2,057$	_	980			-	3,128		3		21	149
1957-58	6	$\frac{2,057}{2,251}$	_	924				3,406		$\frac{3}{2}$	_	2) 20	150
1958-59	1	$\frac{2,231}{1,291}$	_	1,019			-	2,526	102,418	$\frac{2}{3}$	_	21	120
1959-60	9	1,291		1,019				2,320 $2,333$		3	_	21	111
1960-61	4	1,100 $1.387$	_	792				$\frac{2,333}{2,317}$		3	-	<sup>2</sup> ) 16	138
1961-62	4	661	_	447	86		_	1.194		1	_	8	149
1901-02		001		44/	00	1		1,194	49,810	1		8	149

<sup>1)</sup> Right-whale. 2) In addition some whaling boats, which in advance of and after the pelagic baleen whale season were operating from South Georgia. These whaling boats are included under the pelagic whaling. To this fact due consideration has been taken by calculating the "Number of whales per boat."

Table p.—South Georgia. Catch by months in absolute figures.

									1 601 - 7771 1
Species of whales. Seasons.	Oct.	Nov.	Dec.	Jan.	Feb.	March.	April.	Total.	The Whaling Statistics' total figures.
$Total \begin{cases} 1938-39 \dots \\ 1953-54 \dots \\ 1954-55 \dots \\ 1955-56 \dots \\ 1956-57 \dots \\ 1957-58 \dots \\ 1958-59 \dots \\ 1959-60 \dots \\ 1961-62 \dots \end{cases}$	. 268 . 607 . 371 . 314 . 234 . 342 . 345 . 298	240 508 716 391 404 488 288 214 160 200	453 604 506 266 460 869 378 253 353 186	332 880 443 757 562 465 278 481 456 184	218 762 399 572 627 665 516 654 546 229	343 453 510 644 701 636 702 353 460 197	38 115 - - - - - -	1,675 3,590 3,181 3,001 3,068 3,357 2,504 2,300 2,273 1,183	1,675 3,654 3,266 3,049 3,128 3,406 2,526 2,333 2,317 1,194
$Blue-\\whales. \begin{cases} 1938-39 \dots \\ 1953-54 \dots \\ 1954-55 \dots \\ 1955-56 \dots \\ 1956-57 \dots \\ 1957-58 \dots \\ 1958-59 \dots \\ 1959-60 \dots \\ 1960-61 \dots \\ 1961-62 \dots \end{cases}$	. 1 . 1 . 2 5 5	7 1 - 1 1 1 1	131 6 7 1 1 2 - 1	35 4 2 - 1 - - 2	24 - 2 - 1 2 1 - -	32 1 1 1 1 1 2 -	3	232 13 13 3 7 6 1 9 4	232 13 13 3 7 6 1 9 4
$Fin- \\ whales. \begin{cases} 1938-39 \dots \\ 1953-54 \dots \\ 1954-55 \dots \\ 1955-56 \dots \\ 1956-57 \dots \\ 1957-58 \dots \\ 1958-59 \dots \\ 1959-60 \dots \\ 1960-61 \dots \\ 1961-62 \dots \end{cases}$	. 266 . 599 . 366 . 312 . 203 . 342 . 338 . 297	232 505 709 386 387 486 283 211 124 190	318 577 476 262 446 847 329 243 270 172	292 677 403 695 438 418 177 261 154 35	189 443 240 425 336 200 100 83 240 64	211 143 242 487 94 61 45 7 273 13	14 6 - - - - - - -	1,307 2,617 2,669 2,621 2,013 2,215 1,276 1,143 1,358 656	1,307 2,673 2,746 2,669 2,057 2,251 1,291 1,160 1,387 661
$\begin{array}{c} Hump-\ backs. \end{array} egin{cases} 1938-39\ldots \\ 1953-54\ldots \\ 1954-55\ldots \\ 1955-56-1961-6 \end{cases}$	: -	2	2 -	6 -	1 -	2 -	-	11 2	111 2
$\begin{array}{c} \{1938-39\ldots\\1953-54\ldots\\1954-55\ldots\\1955-56\ldots\\1956-57\ldots\\whales.\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	 . 1     . 1	-	1 1 - 1 - 4 45 13	177 29 31 103 30 63 182 284 133	294 153 132 271 388 340 539 289 147	13 213 232 121 589 494 609 335 158 149	6 86     	19 771 416 284 964 912 1,012 1,060 777 442	19 778 423 284 980 924 1,019 1,075 792 447
$Sperm \\ whales. \begin{cases} 1938-39 \dots \\ 1953-54 \dots \\ 1954-55 \dots \\ 1955-56 \dots \\ 1956-57 \dots \\ 1958-59 \dots \\ 1958-60 \dots \\ 1960-61 \dots \\ 1961-62 \dots \end{cases}$	1 6 4	1 2 5 5 16 1 5 2 35 10	$\begin{array}{c c} 4 \\ 18 \\ 22 \\ 3 \\ 12 \\ 20 \\ 49 \\ 5 \\ 37 \\ 1 \end{array}$	5 16 9 31 20 17 38 38 16 16	5 24 4 15 19 75 75 32 17 18	87 94 35 35 17 80 48 9 29	15 23 - - - - - - - -	117 178 81 93 84 224 215 88 134 85	117 179 82 93 84 225 215 89 134 86

Table q.—South Georgia. Catch by months in percentage figures.

	ing Statis- tics' total figures.
$Blue-whales \begin{cases} 1938-39 & - & 2.9 & 28.9 & 10.5 & 11.0 & 9.3 & 7.9 & 13.9 \\ 1953-54 & 0.4 & 0.2 & 1.0 & 0.5 & - & 0.2 & 4.3 & 0.4 \\ 1954-55 & 0.2 & - & 1.4 & 0.5 & 0.5 & 0.2 & - & 0.4 \\ 1955-56 & 0.3 & - & 0.4 & - & - & 0.2 & - & 0.2 \\ 1957-58 & - & 0.2 & 0.2 & 0.2 & 0.2 & 0.2 & 0.2 & - & 0.2 \\ 1957-58 & - & 0.2 & 0.2 & - & 0.3 & 0.2 & - & 0.2 \\ 1957-58 & - & 0.2 & 0.2 & - & 0.3 & 0.2 & - & 0.2 \\ 1958-59 & - & - & - & - & 0.2 & - & - & - & 0.4 \\ 1960-61 & - & 0.6 & 0.3 & 0.4 & - & - & - & 0.6 & - & 0.4 \\ 1960-61 & - & 0.6 & 0.3 & 0.4 & - & - & - & 0.6 & - & 0.4 \\ 1960-61 & - & 0.6 & 0.3 & 0.4 & - & - & - & 0.2 & - & - & - \\ 1955-56 & 98.6 & 99.7 & 70.2 & 88.0 & 86.7 & 61.5 & 33.8 & 78.0 \\ 1953-54 & 99.2 & 99.4 & 95.5 & 76.9 & 58.1 & 31.6 & 5.2 & 72.9 \\ 1955-56 & 98.6 & 98.7 & 99.0 & 94.1 & 91.0 & 60.2 & 47.5 & - & 83.9 \\ 1955-56 & 98.6 & 98.7 & 99.5 & 91.8 & 74.3 & 75.6 & - & 87.3 \\ 1955-58 & 86.8 & 99.6 & 97.5 & 89.9 & 30.1 & 9.6 & - & 66.6 \\ 1958-59 & 1000 & 98.3 & 87.0 & 63.7 & 19.4 & 6.4 & - & 51.0 \\ 1959-60 & 98.0 & 98.6 & 96.0 & 54.3 & 12.7 & 2.0 & - & 49.7 \\ 1960-61 & 99.7 & 77.5 & 76.5 & 33.8 & 44.0 & 59.4 & - & 59.7 \\ 1961-62 & - & - & - & - & - & - & - & - & - & $	100.0 100.0
$Blue-whales \begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	•
$Blue-whales \begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	•
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$13.9 \\ 0.2 \\ 0.4 \\ 0.4$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.1
$ \begin{bmatrix} 1959-60 & 1.4 & 0.5 & 0.4 & - & - & 0.6 & - & 0.4 \\ 1960-61 & - & 0.6 & 0.3 & 0.4 & - & - & - & 0.2 \\ 1961-62 & - & - & - & - & - & - & - & - & - & $	0.2
$ \begin{bmatrix} 1960-61 \\ 1961-62 \end{bmatrix} & - & 0.6 \\ - & - & - \\ - & - & - \\ - & - & - \\ - & - &$	_
	0.4
$Fin-\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	0,2
$Fin- \\ whales \\ \begin{cases} 1953-54 \\ 1954-55 \\ 98.7 \\ 99.0 \\ 98.7 \\ 99.0 \\ 98.7 \\ 99.0 \\ 98.5 \\ 91.8 \\ 91.0 \\ 60.2 \\ 47.5 \\ 91.8 \\ 91.0 \\ 60.2 \\ 47.5 \\ 60.2 \\ 47.5 \\ -83.9 \\ -83.9 \\ -87.0 \\$	
$Fin-\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	$78.0 \\ 73.1$
$Fin-\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	84.1
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	87.5
$Hump-\\ backs \\ \begin{cases} 1938-39 \\ 1955-56 \\ 1961-62 \\ \end{cases} & - \\ 0.3 \\ - \\ 0.1 \\ \end{cases} & - \\ 0.3 \\ - \\ - \\ 0.2 \\ \end{cases} & - \\ 0.3 \\ - \\ - \\ - \\ 0.2 \\ \end{cases} & - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ -$	65.8
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	66.1
$ \begin{bmatrix} 1960-61 & 99.7 & 77.5 & 76.5 & 33.8 & 44.0 & 59.4 & - & 59.7 \\ 1961-62 & 97.3 & 95.0 & 92.5 & 19.0 & 27.9 & 6.6 & - & 55.4 \\ \end{bmatrix}   \begin{bmatrix} 1938-39 & - & - & - & - & - & - & - & - & - \\ 1953-54 & - & - & 0.3 & 0.7 & 0.1 & 0.4 & - & 0.3 \\ 1954-55 & - & 0.3 & - & - & - & - & - & - & - & 0.1 \\ 1955-56- & - & - & - & - & - & - & - & - & - &$	51.1
	$\begin{array}{c} 49.7 \\ 59.9 \end{array}$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	55.4
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	ı
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.3
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$0.3 \\ 0.1$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.1
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1.1
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	21.3
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	12.9
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	9.3
$ \begin{vmatrix} 1958-59 & - & - & - & 22.7 & 65.9 & 86.8 & - & 40.4 \\ 1959-60 & - & - & 1.6 & 37.8 & 82.4 & 94.9 & - & 46.1 \\ 1960-61 & 0.3 & - & 12.7 & 62.3 & 52.9 & 34.3 & - & 34.2 \end{vmatrix} $	31.3
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$27.1 \\ 40.4$
1960-61   0.3   -   12.7   62.3   52.9   34.3   -   34.2	46.1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	34.2
[ 1961-62   -   7.0   72.3   64.2   75.6   -   37.4	37.4
[ 1938-39   -   0.4   0.9   1.5   2.3   25.4   39.5   7.0	7.0
$oxed{1953-54} oxed{0.4} oxed{0.4} oxed{0.4} oxed{3.0} oxed{1.8} oxed{3.2} oxed{2.0} oxed{20.8} oxed{20.0} oxed{4.9}$	4.9
$oxed{1954-55} oxed{1.0} oxed{0.7} oxed{4.3} oxed{2.0} oxed{1.0} oxed{6.8} oxed{-2.5}$	2.5
1955-56 1.1 1.3 1.1 4.1 2.6 5.4 - 3.1	3.1
Sperm-         1956-57         -         4.0         2.6         3.6         3.0         2.4         -         2.8	2.7
whales \ \begin{array}{c c c c c c c c c c c c c c c c c c c	6.6
$\left[ egin{array}{c c c c c c c c c c c c c c c c c c c $	8.5
$oxed{egin{array}{ c c c c c c c c c c c c c c c c c c c$	3.8 5.7
$\left[\begin{array}{c ccccccccccccccccccccccccccccccccccc$	7.2

Table r.—South Georgia. Catch of immature and mature whales 1938/39 and 1953/54-1961/62.

	1938-	-39	1953-	-54.	1954-	-55.	1955-	-56.	1956—	-57.	1957-	-58.	1958-	-59.	1959-	<b>60.</b>	1960-	-61.	1961-	-62.
•	Numbe of whales.	Per cent.	Number of whales.	Per cent.	Number of whales.	Per cent.	Number of whales.	Per cent.	Number of whales.	Per cen .	Number of whales.	Per cent.	Number of whales.	Per cent.	Number of whales.	Per cent.	Number of whales.	Per cent.	Nnmber of whales.	Per cent.
Blue- whales.																				-
Immature males females animals	$ \begin{array}{r}     44 \\     \hline     65 \\     \hline     109 \end{array} $	48.5	8	$ \begin{array}{r} 33.3 \\ 80.0 \\ \hline 69.2 \end{array} $	7	$66.7 \\ 100.0 \\ \hline 84.6$		100.0	$\begin{bmatrix} & 5 \\ & 1 \\ & 6 \end{bmatrix}$	100.0	1	$   \begin{array}{r}     100.0 \\     50.0 \\     \hline     83.3   \end{array} $	_	100.0 - 100.0	4	$ \begin{array}{r} 100.0 \\ 66.7 \\ \hline 77.8 \end{array} $	2	$   \begin{array}{r}     100.0 \\     \hline     66.7 \\     \hline     75.0   \end{array} $	_	
Mature males females	54 69	55.1 51.5	2	66.7 20.0	2	33.3	$-\frac{1}{2}$	_	_	_		50.0	_	-	$-\frac{7}{2}$		_	75.0 - 33.3	_	_
animals	123			30.8		15.4	$\frac{2}{2}$	66.7	1			16.7		-	$\frac{2}{2}$	22.2		25.0		
Fin- whales.																				
Immature males females	188 231	30.7 33.2				$47.6 \\ 42.0$				51.7 $50.3$		38.4 31.9		$\frac{39}{31.5}$				48.5 50.0		59.5 58.3
animals	419	32.1	1,407	53.8	1,189	44.5	1,098	41.9	1,026	51.0	768	34.7	<b>45</b> 9	35.3	385	33.7	669	49.3	386	58.8
Mature males females	424 464	66.8	613	45.1	837	52.4 58.0	808	58.1	457 530	49.7	859	68.1	482	68 5	472	67.6	347	50.0	148	41.7
animals	888	67.9	1,210	46.2	1,480	55.5	1,523	58.1	987	49.0	1.447	65.3	826	64.7	758	66.3	689	50.7	270	41.2

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Table s.—Antarctic whaling results for the various countries 1938/39 and 1948/49—1961/62.

	All countries.		ountries. Norway.			Kingdom.	Soutl	a Africa.	Ja	pan.	Argentina.		
Years.	Number of whales.	Oil produc- tion.	Number of whales.	Oil produc- tion.	Number of whales.	Oil produc- tion.	Number of whales.	Oil produc- tion.	Number of whales.	Oil produc- tion.	Number of whales.	Oil produc- tion.	
	Ī	Barrels.1)		Barrels.		Barrels		Barrels.		Barrels.		Barrels.	
1938-39 1948-49 1949-50 1950-51 1951-52 1952-53 1953-54 1954-55 1955-56 1956-57 1957-58 1958-59	38,356 31,435 32,396 33,997 35,237 30,653 34,872 37,654 38,580 36,115 39,896 38,890 38,892	2,820,771 2,219,621 2,166,489 2,303,690 2,479,180 2,118,097 2,285,720 2,242,555 2,307,171 2,246,922 2,317,638 2,152,659 2,148,438	16,196 16,799 16,844 15,650 11,240 14,928 14,491 14,510 15,043	1,108,027 1,106,487 1,116,284 1,136,643 813,979 1,027,807 869,241 852,482 1,004,373 853,810 826,037	10,022 7,596 7,786 6,227 6,938 6,964 7,620 7,912 7,444 6,266 7,080 5,425 5,165	790,846 595,803 518,417 474,330 500,254 491,012 537,774 471,315 474,760 381,931 400,705 293,660 288,117	2,608 1,882 2,541 2,494 2,460	160,728 $145,298$ $161,911$ $185,962$	1,643 2,114 2,741 3,831 2,645 4,218 5,958 6,462	483,476 119,361 168,754 170,596 259,476 207,335 252,677 366,915 408,853 492,507 627,849 646,130 617,141	1,024 919 946 796 798 678 1,083 947 812 1,108 1,860 923 933	66,826 52,518 41,348 40,593 41,825 32,187 53,478 50,568 43,376 51,330 94,199 39,430 40,500	
$1960-61\dots$ $1961-62\dots$	$\frac{41,289}{38,555}$	2,232,884 $2,051,776$	12,490	743,298		4) 306,199 4) 212,367		_	13,592 $14,351$	667,350 $735,895$	-	_	
In per cent	%	%	%	%	%	%	%	%	%	%	%	%	
1938-39 1948-49 1949-50 1950-51 1951-52 1952-53 1954-55 1956-57 1957-58 1958-59 1959-60 1960-61	100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	51.9 49.5 44.4 36.7 42.8 38.5 37.6 41.6 33.3 36.2 29.1 30.2	49.9 51.1 48.5 45.8 38.4 45.0 38.8 36.9 44.7 36.8 38.4 31.7	26.1 24.2 24.0 18.3 19.7 22.8 21.8 21.0 19.3 17.4 17.7 13.9 13.3 4) 14.1	28.0 26.9 23.9 20.6 20.2 23.5 21.0 20.6 17.0 17.3 13.6 4) 13.7 4) 10.4	7.1 8.0 6.4 4.5 5.7 4.4 -	6.5 4.5 4.7	5.2 6.5 8.1 10.9 8.6 12.1 15.8 16.7		3.1 2.5 2.1 3.1 4.7 2.4 2.4	2.4 2.4 1.9 1.7 1.5 2.3 2.2 1.9 2.3 4.1 1.8	

<sup>1), 2), 3), 4)</sup> See notes on next page.

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Table s (continued).

	Gern	nany.	Pana	ama.		States nerica.	Nethe	erlands.	v.s	.s.r.
Years.	Number of whales.	Oil produc- tion.	Number of whales.	Oil produc- tion.	Number of whales.	Oil produc- tion.	Number of whales.	Oil produc- tion.	Number of whales.	Oil produc- tion.
		Barrels.1)		Barrels.		Barrels.		Barrels.		Barrels.
1938-39	5,066	374,149	907	68,853	1,106	92,964	_	_	_	_
1948-49	_	-	-	-	-	-	1,366	109,849	1,107	73,335
<b>194</b> 9–50	_	-	-	-	-	-	1,295	82,792	1,574	103,393
1950-51	_	_	1,497	126,522	_	-	1,660	103,560	1,691	109,894
1951-52	_	_	1,408	97,073	_	_	1,650	110,300	2,468	147,647
1952–53	_	_	2,365	164,150	_	_	1,575	103,710	<b>2</b> ,726	155,269
1953-54	_	_		, _	_	_	1,711	97,596	3,086	169,117
1954–55	_	_	2,512	147,880	_	_	848	64,739	3,290	172,088
1955-56		_	$\frac{2,730}{2}$	160,960	_	_	1.665	103,465	2,773	153,736
1956–57	_	_	2,.00	200,000	_		1,409	92,489	2,600	137,706
1957–58		_	_	_	_	_	1,867	116,497	4,037	224,578
1958-59	_	_	_	_	_	_	2,226	126,488	3,687	220,914
1959–60		_	_	_	_	_	2,081	143,050	7,031	378,300
1960-61		_	_	_	_	_	2,212	139,774	7.182	376,263
1961-62	_		_	_		_	1,628	90,305	8,948	444,441
In per cent	%	%	%	%	%	%	%	%	%	%
1938–39	13.2	13.3	2.4	2.4	2.9	3.3	_	_	_	_
1948-49	10.2	10.0	<b></b>	2.1	2.0	0.0	4.4	4.9	3.5	3.3
1949-50	_	_	_	_	_		4.0	3.8	4.9	4.8
1950-51			4.4		_	_	4.9	4.5	5.0	4.8
1951-52			4.0	5.5	_	_	4.7	4.4	7.0	6.0
1952–53			7.7	3.9	_		5.1	4.9	8.9	7.3
1953-54	_	_		7.8			4.9	4.3	8.9	7.4
1954-55	_		6.7	7.0			2.3	2.9	8.7	7.7
1954-55 1955-56	-		7.1	6.6			4.3	4.5	7.2	6.7
	_	_	7.1	7.0	_	_	3.9	4.1	$7.2 \\ 7.2$	6.1
1956–57	-	-	-	7.0		-	4.7	5.0	10.1	9.7
1957–58	-	-	-	-	-	-	5.7	5.9 5.9	9.5	10.3
1958-59	_	-	-	_	-	-	5.3	6.7	18.1	10.5 17.6
1959–60	-	-	-	-	-	-	$\begin{array}{c} 5.5 \\ 5.4 \end{array}$	6.3		16.8
1960-61	-	-	-	-	-	-			17.4	$\begin{array}{c} 10.8 \\ 21.6 \end{array}$
1961-62	-	-				-	4.2	4.4	23.2	

<sup>1)</sup> Barrel = 170 kg. (Barrel = abt. ½ long ton. 1 long ton = 1,016 kg.) 2) Including the catch of two Norwegian expeditions hired by Germany—in 1938-39 1,658 whales. 3) Including the production of two Norwegian expeditions hired by Germany—in 1938-39 118,380 barrels. 4) Including the catch and production of one British company registered at Falkland Islands, in 1960-61 1,262 whales and 58,016 barrels of oil or 3,1 and 2,6 per cent, respectively, in 1961-62 1,194 whales and 49,815 barrels of oil or 3.1 and 2.4 per cent, respectively.

Table t.—Average production of oil per blue-whale unit.1)

Years.	South Georgia.	Pelagic whaling.	Years.	South Georgia.	Pelagic whaling.
7007 00	Barrels2)	Barrels2)		Barrels	Barrels
1925–26	84.0	84.8	1944–45	111.5	118.0
1926–27	96.4	91.1	1945-46	83.1	98.6
1927-28	106.4	92.8	1946-47	112.5	113.1
1928–29	108.2	98.3	1947–48	128.3	111.2
1929–30	110.7	109.6	1948-49	126.5	115.9
1930-31	100.1	105.6	1949-50	115.0	118.6
1931–32	92.9	102.6	1950-51	121.5	117.3
1932–33	86.5	114.6	1951–52	127.6	129.4
1933-34	91.8	111.9	1952–53	126.3	128.0
1934-35	105.1	102.2	1953-54	121.1	128.6
1935–36	95.5	101.6	1954-55	124.6	117.3
1936-37	104.5	111.7	1955-56	123.6	121.6
1937–38	95.7	111.1	1956–57	122.9	128.7
1938-39	117.6	107.1	1957–58	126.9	124.9
1939–40	106.1	117.2	1958 - 59	114.0	118.2
1940-41	109.1	105.8	1959-60	123.0	120.5
1941-42	110.1	_	1960-61	127.2	116.9
1942-43	95.2		1961-62	112.9	118.1
1943-44	120.2	142.9			

<sup>1)</sup> Other whales are reduced to blue-whale units on the following basis: — 1 blue-whale = 2 fin-whales = 2½ humpbacks = 6 sei-whales. 2) Barrel = 170 kg. (Barrel = abt. ½ long ton. 1 long ton = 1.016 kg.)

For the seasons covered by table k the minimum length settled for blue-whales and humpbacks has been 70 ft. and 35 ft., respectively. The minimum length settled for fin-whales was 55 ft. until and including 1950–51, during the 3 successive seasons 60 ft. and from and including 1954–55 57 feet. In order to eliminate the possible influence which a variation in the legal size and the number of undersized whales killed might have on the average size, table l, page 27 has been prepared. The average size of blue-whales killed (of 70 feet and over) was in 1961–62 75.7 feet compared with 74.3 feet in the season 1960–61. The average size of the fin-whales killed (of 60 feet and over) was approximately the same as in the two preceding seasons, or 68.1 feet. The average size of the humpbacks killed (of 35 feet and over) was 41.4 feet both in 1961–62 and 1960–61.

The average size of blue- and fin-whales killed in the different areas during a number of seasons were as follows:

	Average si	ze of blue-w	hales killed	, in Engl. f	eet.		
Season	$_{\mathbf{II}}^{\mathbf{Area}}$	$_{\mathbf{III}}^{\mathbf{Area}}$	Area IV	Area V	Area VI	$_{\rm I}^{\rm Area}$	All areas
1938–39	79.0	77.0	77.9	79.7		70.0	78.0
1957–58	77.8	77.4	76.7	76.9	76.9	76.1	77.1
1958–59	80.5	79.0	78.0	78.5	76.9	_	78.3
1959–60	79.2	77.4	73.3	76.6	76.9	78.7	75.9
1960–61	79.7	72.6	71.8	78.6	78.0	77.0	74.0
1961–62	77.6	72.9	74.0	77.4	76.4	78.2	75.3

Average size of fin-whales killed, in Engl. feet.											
Season	Area II	Area III	Area IV	Area V	$_{\rm VI}^{\rm Area}$	$_{\rm I}^{\rm Area}$	All areas				
1938–39	67.4	66.4	67.5	68.1	_	64.5	67.2				
1957–58	67.3	66.7	65.6	64.4	65.1	66.1	66.2				
1958–59	67.1	66.4	66.5	65.6	64.6	-	66.3				
1959–60	66.9	66.7	66.3	66.8	65.1	64.5	66.6				
1960–61	66.6	67.5	65.7	66.9	64.9	65.2	66.8				
$1961-62 \ldots \ldots$	67.5	66.7	64.8	65.5	64.9	66.0	66.5				

In the season 1961–62 the pelagic expeditions, according to reports from the whaling companies, caught 34 blue-whales, 305 fin-whales, 2 humpbacks, 2 sei-whales and 5 sperm-whales which were below the minimum size. The corresponding figures in 1960–61 were 73 blue-whales, 285 fin-whales and 5 humpbacks.

#### Mature and immature whales.

Table m, page 29, gives particulars of the catch of mature and immature whales in absolute and relative figures during a series of seasons. Animals of the following sizes are regarded as mature:

Blue-whales:	Female	77 feet	and over
	Male	74	,,
Fin-whales:	Female	65	,,
	Male	63	,,
Humpbacks:	Female	41	,,
	Male	40	,,

From table m, it will appear that 58.9 per cent of all bluewhales killed in 1961–62 were immature as compared with 71.7 and 50.3 per cent in the two preceding seasons. Of the fin-whales killed in 1961–62 31.9 per cent were immature against 27.7 per cent in 1960–61. Of the humpbacks killed during the last season 33.7 per cent were immature.

The percentage number of immature blue- and fin-whales killed in the different areas will be seen from this survey:

	Imn	nature blue-wha	ales	Im	Immature fin-whales				
Areas	1959-60 Engl. ft.	1960-61 Engl.ft,	1961–62 Engl. ft.	1959–60 Engl. ft.	1960–61 Engl. ft.	1961–62 Engl. ft.			
II	32.8	29.7	41.8	29.0	31.7	26.8			
III	45.5	86.4	84.1	26.6	22.3	30.2			
IV	78.7	89.4	72.2	29.4	37.4	45.7			
V	34.8	27.1	27.0	23.5	25.4	35.2			
VI	29.9	25.1	32.8	33.4	38.8	38.3			
I	16.7	20.0	30.8	49.5	37.5	32.2			
Total	50.3	71.7	58.9	27.6	27.7	31.9			

# Pelagic whaling results in relation to the whaling matériel and whaling period.

From the survey below it will be seen that the average result per catcher's day's work in the last season was only 0.51 blue-whale units, as compared with 0.68, 0.73 and 0.94 units in the three preceding seasons. This represents a decline of 25 per cent compared with 1960–61 and 46 per cent compared with 1958–59. The decrease from 1960–61 to 1961–62 was largest in area IV, VI and V.

		Average result of blue-whale units per catcher's day's work.								
Season	Area II	Area III	Area IV	Area V	Area VI	Area I	All areas			
1956–57	0.93	0.92	1.04	0.43	1.01	0.95	0.95			
1957–58	0.73	0.95	1.10	0.92	0.99	0.72	0.90			
1958–59	0.79	0.94	1.03	0.93	0.93	PARTITION	0.94			
1959–60	0.55	0.68	0.91	0.87	0.57	0.62	0.73			
1960–61	0.59	0.74	0.85	0.61	0.64	0.47	0.68			
1961–62	0.45	0.57	0.57	0.39	0.38	0.53	0.51			

Table n, page 30, gives a survey of the pelagic whaling results of the individual participating countries as from 1938–39 (excl. the seasons 1939/40-1949/50) regarding the number of whales killed, oil production and number of catchers employed in each season.

#### South Georgia.

The whaling results from South Georgia for each season since 1919–20 are given in table o, page 31. During all the post war seasons, except the seasons 1957-58 and 1961-62, when only 2 shore stations and one shore station, respectively, were operating, 3 shore stations have carried on whaling from South Georgia. In the season 1960-61 two of these stations were, however, operated as one unit. In 1961-62 only 1,194 whales were killed, against 2,317 in the preceding season. During the 15 post-war seasons 1946/47-1960/61 the annual average number of whales killed has been about 2,900. During the earlier of these post-war seasons quite a considerable number of blue-whales was killed off South Georgia, viz. 327 in 1946-47, 226 in 1948-49 and 82 in 1950-51. During later seasons the blue-whale catch has been insignificant. In 1961-62 no bluewhale was killed. The fin-whale is the prevailing species killed in the pelagic operations as well as off South Georgia, but on this ground the catch of sei-whales is also important. During most of the post-war seasons a greater number of sei-whales has been killed here than in pelagic whaling.

The oil production in the season 1961–62 amounted to 45,359 barrels of whale-oil and 4,456 barrels of sperm-oil, or a total of 49,815 barrels.

Table u.—Average weekly production of whale-oil per blue-whale unit in the pelagic whaling 1960-61 and 1961-62.

	Season 1960	61.		Season 1961—62.					
Week ending	Production of whale-oil.	Number of blue-whale units.	Prod. per blue-whale unit.	Week ending	Production of whale-oil.	Number of blue-whale units.	Prod. per blue-whale unit.		
	Barrels.		Barrels.		Barrels.		Barrels.		
$^{31}/_{12}$ $^{1960}$ $^{1}$	126,460 150,355 178,477 132,962 127,717 179,344 140,759 150,033 146,406 138,737 119,926 99,033 66,495	1,077.9 1,215.5 1,401.4 1,561.9 1,162.2 1,277.0 1,679.2 1,145.9 1,240.9 1,037.4 1,164.4 914.9 724.6 470.5	99.0 104.0 107.3 114.3 114.4 100.0 106.8 122.8 120.9 141.1 119.1 136.7 141.3	$\begin{bmatrix} 23/_{12} & 1961 \\ 30/_{12} & , \\ 6/_{1} & 1962 \\ 13/_{1} & , \\ 20/_{1} & , \\ 27/_{1} & , \\ 3/_{2} & , \\ 10/_{2} & , \\ 17/_{2} & , \\ 24/_{2} & , \\ 3/_{3} & , \\ 10/_{3} & , \\ 17/_{3} & , \\ 24/_{3} & , \\ \end{bmatrix}$	153,788 58,358 84,986 133,862 112,092 127,651 124,876 151,808 148,092 88,645 100,000 113,453 101,110	1,184.8 958.7 1,133.6 1,194.6 1,261.2 1,139.1 804.2 831.7 860.0 887.6 1,407.9	104.1 108.0 106.9 113.0 116.9 112.6 104.5 120.4 130.0 110.2 120.2 131.9 136.1		
7/4 ,,	47,956	300.0	159.9	$\begin{vmatrix} 31/3 & *, \\ 7/4 & *, \end{vmatrix}$	72,078 $34,349$	$482.3 \\ 268.7$	$149.4 \\ 127.8$		
Total	1,911,376	16,373.7	116.7	Total	1,796,754	15,228.3	118.0		

<sup>1)</sup> Include the catch and production of one expedition from and incl. November 28th 1960.

During the previous season the output was 103,318 barrels of whale-oil and 6,409 barrels of sperm-oil, or a total of 109,727 barrels.

Tables p and q, pages 32 and 33, give the catch off South Georgia by months in absolute and percentage figures for 1938–39 and for the post-war seasons from and including 1953–54. Table r, page 34, shows the proportion of mature and immature animals killed.

## Oil production by participating countries.

In table s, pages 35 and 36, the total whaling results in the Antarctic during the seasons 1938–39 and from and including 1948–49 have been distributed in respect to the individual participating countries. During the last 5 seasons the percentage proportion of the oil production of the individual countries has been as follows:—

	Oil production during the last 5 seasons							
	1957/58 Per cent	1958/59 Per cent	1959/60 Per cent		1961/62 Per cent			
Norway	36.8	38.4	31.7	33.3	27.7			
United Kingdom	17.3	13.6	13.4	13.7	10.4			
Japan	27.1	30.0	28.7	29.9	35.9			
U.S.S.R	9.7	10.3	17.6	16.8	21.6			
Netherlands	5.0	5.9	6.7	6.3	4.4			
Argentina	4.1	1.8	1.9	_	-			
Total	100.0	100.0	100.0	100.0	100.0			

## Oil production per blue-whale unit.

The average output of oil per blue-whale unit for South Georgia and for the pelagic expeditions from and including the season 1925-26 has been recorded in table t, page 37. For pelagic whaling the average output was 118.1 barrels during the season 1961-62 against 116.9 barrels during the preceding season. In the survey below is given the average output of oil per blue-whale unit in the individual areas from and including 1956-57.

		Average oil o	utput per blu	e-whale unit	during the la	st 6 seasons	
Season	Area II Barrels	Area III Barrels	Area IV Barrels	Area V Barrels	Area VI Barrels	Area I Barrels	Total Barrels
1956-57	133.0	139.3	146.5	88.2	118.3	122.9	128.7
1957-58	133.6	125.6	126.5	99.7	116.7	126.9	124.9
1958-59	131.0	123.6	107.0	112.3	117.7		118.2
1959-60	132.2	128.9	101.3	120.2	121.1	117.7	120.5
1960-61	140.3	112.8	101.9	115.1	110.1	108.5	116.9
1961-62	136.7	111.5	95.8	114.7	120.7	125.0	118.1

The highest yield last season was in Area II with 136.7 barrels. Next comes Area I with 125.0 barrels. The lowest output was in Area IV with 95.8 barrels per blue-whale unit. In the other areas the yield varied between 111.5 and 120.7 barrels.

Table u, page 40, is recording the average weekly production per blue-whale unit for the pelagic expeditions during the seasons 1960–61 and 1961–62. It will be observed that **t**he average yield per blue-whale unit is increasing as the whaling season proceeds, from 100–115 barrels in December/January up to about 130–140 barrels in March/April.

#### By-products.

In table v, page 42, detailed information is given on the production of by-products in the Antarctic during the post-war seasons. From and including the season 1957–58 the figures are distributed in respect to the individual countries.

The production of by-products reached a new record figure during the last season. The production of whale meat amounted to 178,670 tons compared with 124,698 and 95,997 tons during the two preceding seasons. Of whale meal there was produced 47,696 tons against 56,031 tons in 1960–61.

#### Whaling fleet crews.

From the survey, page 43, will be seen the number of men of different nationalities employed in the Antarctic whaling industry during the 3 latest

Table v.—Production of by-products in the Antarctic whaling in the seasons 1946/47—1961/62.

		1770/77	-1701/0				
By-products	Whale				Whale meat.		
	meat-meal, bone-meal,	Whale liver	Liver-	Liver	blubber,	Whale	Other
Seasons	grax meal,	or liver flakes	oil	meal	ventral	solubles	by- products1)
Countries	guano	, Tanos			grooves		products /
	Long tons	L. tons	L. tons	L. tons	L. tons	L. tons	L. tons
1946-47 Total	19,302	671	79	380	21,914	-	137
1947–48 Total	24,460	918	112	495	30,062	-	1,369
<i>1948–49</i> Total	26,792	1,173	166	596	39,635	-	2,215
<i>1949–50</i> Total	25,852	817	250	573	46,824	779	1,629
<i>1950–51</i> Total	25,821	841	264	622	28,389	2,444	990
1951–52 Total	24,116	823	195	435	28,299	5,760	874
$1952-53\ldots$ Total	25,584	601	155	456	28,581	5,390	191
<i>1953–54</i> Total	35,660	185	199	385	34,792	9,885	2,072
<i>1954–55</i> Total	35,519	669	218	115	42,681	8,508	3,956
1955-56 Total	43,189	755	252	162	45,835	7,546	2,815
1956-57 Total	42,735	692	255	156	70,720	6,526	4,871
1957-58.							
Norway	5,099	57	47	_	401	1,486	182
United Kingdom	21,611	1	39	113	4,822	8,147	428
Netherlands	2,242	_	15	_	, _	´ _	43
U.S.S.R	3,942	537	_		_	_	_
Japan	881	_	137	_	80,372	_	11,447
Argentina	11,139	-	-	_	· –	_	· –
Total	44,914	595	238	113	85,595	9,633	12,100
1958-59.							
Norway	9,609	25	40	_	1,375	_	402
United Kingdom	16,656	_	23	138	$3,\!887$	2,153	717
Netherlands	3,507	-	12	_	_	-	41
<u>U.S.S.R.</u>	4,528	620		-		-	-
Japan	1,199	-	112	-	73,396	-	20,120
Argentina	5,785						
Total	41,284	645	187	138	78,658	2,153	21,280
1959-60.	0.140	10	26		2,159		995
Norway	$9{,}142$ $18{,}129$	-		_		1,038	1,197
United Kingdom	, ,	_	4		6,080	1,058	
Netherlands	4,635	1 200	11	_	1,699	_	55
U.S.S.R.	12,150	1,306	90	_	$2{,}106$ $83{,}953$	_	20,401
Japan Argentina	$\begin{array}{c} 2,810 \\ 6,158 \end{array}$		90	-	00,900	_	3
· ·			191		05.005	1.020	
$_{1960-61.}^{ m Total}$	53,024	1,316	131	_	95,997	1,038	22,651
Norway	6,580	5	12	_	4,954	_	1,474
United Kingdom	<sup>2</sup> ) 24,015	_			<sup>2</sup> ) 715	2,169	1,325
Netherlands	3,885	544		_	7,332		45
U.S.S.R	14,853	1,388	12		6,924	_	_
Japan	6,698	_	110		104,773	_	26,874
Total	56,031	1,937	134		124,698	2,169	29,718
1961—62.		20			20.000		900
Norway	5,138	28	3	-	20,999	-	386
United Kingdom	³)16,874	409	8	_	0.070	-	566
Netherlands	1,702	402	10	-	8,970	-	<b>3</b> 0
U.S.S.R Japan	$17,843 \\ 6,139$	$\begin{array}{c c} 1,876 \\ 30 \end{array}$	$\frac{12}{79}$	_	12,683 $136,018$	_	39,003
Total	$\frac{0,139}{47,696}$	$\frac{30}{2,336}$	$-\frac{79}{102}$		$\frac{130,018}{178,670}$		$\frac{39,003}{39,985}$
Total	41,090	∠,550	102		110,010		55,500

<sup>1)</sup> Products such as: Teeth, baleen, ambergris, pancreas, processed bone, bone fertilizer, protein, hypophyses, internal organs, blubber for leather, gelatin material, tail flukes, etc. 2) Including 6,321 long-tons whale meal and 715 long tons whale meat etc. produced by a British company registered at Falkland Islands. 3) Incl. 7,168 long tons whale meal produced by a British company registered at Falkland Islands.

seasons. The figures include the crews employed on the freezing- and refrigeratorships operating in the Antarctic.

	Number of men employed in the Antarctic whaling industry									
Nationalities	Season 1 Number	959/60 Per cent	Season 196	0/61 Per cent	Season 1961/62 Number Per cent					
Nationalities	Number	Per cent	Number	Per cent	Number	Per cent				
Norwegian	$6,\!152$	34	5,377	27	4,557	23				
British	890	5	780	4	$\bf 559$	3				
Japanese	8,100	45	9,680	50	9,748	50				
Russian¹)	2,000	11	2,900	15	4,050	20				
Others <sup>2</sup> )	787	5	759	4	727	4				
Total	17,929	100	19,496	100	19,641	100				

<sup>1)</sup> Estimated. 2) Incl. also men whose nationality is unknown.

Table No. I.—Whaling in the Antarctic in the season 1961/62.

		Spe	cies of w	hales car	ight.			Expeditions.		
Geographical areas.	Blue.	Fin.	Hump- back.	Sei.	Sperm.	Total of whales.	Oil production.	Shore sta- tions.	Floating factories.	Catch- ers.
South Georgia Antarctic, pelagic whaling	1,118	661 26,438	309	447 4,749		1,194 <sup>2</sup> )37,357	,		21	8 261
Total	1,118	27,099	309	5,196			2,051,776	1	21	269

¹) Barrel = 170 kg. (Barrel = abt.  $^{1}/_{6}$  long ton, 1 long ton = 1,016 kg.) ²) In addition 1 right-whale, 2 Minkewhales and 1 Baird's beaked whale.

Table No. 2.—Whaling results for the various countries in the Antarctic in the season 1961/62.

		Spe	cies of w	hales car	ıøht.			E	xpedition	s.
Countries. Geographical areas.	Blue.	Fin.	Hump- back.	Sei.	Sperm.	Total of whales.	Oil production.	Shore sta- tions.	Float- ing fac- tories.	Catchers.
Japan:— Antarctic, pelagic	489	11,855	2	941	1,064	14,351	Barrels <sup>1</sup> ) 735,895	_	7	86
Norway:— Antarctic, pelagic	132	6,943	12	560	1,657	9,304	568,768	_	7	71
United Kingdom:— Antarctic, pelagic South Georgia <sup>2</sup>	50 -	1,678 661	11 -	1,058 447		3,130 1,194		_ 1	<b>2</b>	22 8
U.S.S.R.:— Antarctic, pelagic	402	4,851	270	2,138	1,283	³)8,9 <b>4</b> 4	444,441	_	4	67
Netherlands:— Antarctic, pelagic	45	1,111	14	52	406	1,628	90,305	_	1	15
Total	1,118	27,099	309	5,196	4,829	38,551	2,051,776	1	21	269

¹) Barrel = 170 kg. (Barrel = abt.  $^{1}/_{6}$  long ton, 1 long ton = 1,016 kg.) ²) Catch and production of a British com apply registered at Falkland Islands. ³) In addition 1 right-whale, 2 Minke-whales and 1 Baird's beaked whale.

Table No. 3.—Average size of whales caught in the Antarctic in the season 1961/62.

Geographical areas.			Average size.	
Number of whales measured.	Company.	Males.	Females.	Total animals.
		Engl. feet.	Engl. feet.	Engl. feet.
Blue-whales.				
materic, pelagic whaling  Males 508 Females 608 Total 1,116.	No. 1  ,, 2  ,, 3  ,, 4  ,, 5  ,, 6  ,, 7  ,, 8  ,, 9  ,, 10  ,, 11  ,, 12  ,, 13  ,, 14  ,, 15  ,, 16  ,, 17	81.33 77.39 75.89 75.90 72.00 78.25 75.74 75.88 74.45 75.63 73.25 73.13 71.33 70.00 71.43 71.02 71.17	82.50 81.80 81.25 81.68 82.00 78.00 79.66 77.59 76.84 75.76 76.25 76.61 73.00 72.78 72.85 71.74	82.23 79.71 78.95 78.86 78.67 78.08 77.99 76.78 76.00 75.70 74.75 74.67 72.55 72.50 72.30 71.96 71.41
$\Lambda verage$	,, 18	$ \begin{array}{r} 70.67 \\ 79.00 \\ \hline 73.75 \end{array} $	$-\frac{71.83}{63.00} \\ -\frac{76.65}{}$	$\frac{71.25}{71.00}$ $\frac{75.33}{75.33}$
Fin-whales.				
$\begin{array}{ll} \text{uth } \textit{Georgia} \dots \\ \text{Males} & 301 \\ \text{Females} & 355 \end{array} \} \text{ Total } 656.$	No. 1	61.67	64.01	62.94
tarctic, pelagic whaling  Males 11,899 Females 14,465  Total 26,364.	No. 1  ,, 2  ,, 3  ,, 4  ,, 5  ,, 6  ,, 7  ,, 8  ,, 9  ,, 10  ,, 11  ,, 12  ,, 13  ,, 14  ,, 15  ,, 16  ,, 17  ,, 18  ,, 19  ,, 20	65.60 66.10 65.30 65.05 64.96 64.68 65.52 64.53 64.83 65.22 65.88 64.41 63.70 64.24 63.33 63.69 64.21 63.25 63.29 62.40	70.78 70.02 70.34 69.60 69.57 70.13 68.90 68.96 69.01 68.26 67.70 68.57 67.93 67.35 67.45 67.45 66.84 66.74 66.32 66.31	68.32 68.26 68.08 67.65 67.57 67.42 67.26 67.19 67.13 66.78 66.77 66.73 66.01 65.85 65.60 65.63 65.64 64.91 64.91 64.34
f Average	,, 17 ,, 18 ,, 19	64.21 $63.25$ $63.29$		66.84 66.74 66.32 66.31 65.45

Geographical areas.			Average size.	
Number of whales measured.	Company.	Males.	Females.	Total animals.
		Engl. feet.	Engl. feet.	Engl. feet.
Humpbacks.				
Antarctic, pelagic whaling  Males 112 Females 197 Total 309.	No. 1  ,, 2  ,, 3  ,, 4  ,, 5  ,, 6  ,, 7  ,, 8  ,, 9  ,, 10  ,, 11	42.33 41.83 41.56 - 39.33 40.92 39.55 39.00 38.00	47.00 44.00 43.29 43.50 42.36 42.00 43.38 41.48 41.86 39.76	47.00 44.00 43.00 42.50 42.13 42.00 41.64 41.26 40.98 39.42 38.00
Average		40.39	41.92	41.37
Sei-whales.				
$egin{array}{lll} South Georgia & $	No. 1	47.32	50.02	48.63
Antarctic, pelagic whaling  Males 1,750 Females 2,966 Total 4,716.  Average	No. 1  " 2  " 3  " 4  " 5  " 6  " 7  " 8  " 9  " 10  " 11  " 12  " 13  " 14  " 15  " 16  " 17  " 18  " 19  " 20  " 21	50.03 50.67 48.67 49.23 49.39 48.84 48.20 49.38 49.08 48.77 48.43 47.53 48.35 48.95 47.83 47.61 48.19 45.67 47.32 47.45 48.68	54.00 52,84 52,50 51.94 51.75 51.73 51.71 50.85 50.96 51.15 51.28 51.19 51.76 50.80 50.63 50.71 50.48 51.15 49.87 50.02 49.05	54.00 51.68 51.40 51.19 50.99 50.75 50.72 50.32 50.19 50.19 50.19 50.18 50.00 49.90 49.71 49.57 49.56 49.52 49.17 48.63 48.42 50.30
Sperm-whales.				
South Georgia	No. 1	46.65		46.65

Garage 1 in 1			Average size.	
Geographical areas. Number of whales measured.	Company.	Males.	Females.	Total animals.
Antarctic, pelagic whaling  Males 4,706 Females 11 Total 4,717.	No. 1  " 2  " 3  " 4  " 5  " 6  " 7  " 8  " 9  " 10  " 11  " 12  " 13  " 14	Engl. feet. 49.53 48.14 47.62 47.19 47.07 46.83 46.81 46.53 46.30 46.39 46.25 46.23 46.08 45.80	Engl. feet	Engl. feet. 49.53 48.14 47.62 47.19 47.07 46.83 46.81 46.53 46.30 46.27 46.25 46.23 46.08 45.80
Average	,, 15 ,, 16 ,, 17 ,, 18 ,, 19 ,, 20 ,, 21	45.49 45.09 44.92 44.56 44.48 43.45 41.29 46.27	40.86	$\begin{array}{r} 45.49 \\ 45.09 \\ 44.92 \\ 44.56 \\ 44.48 \\ 43.10 \\ 41.29 \\ \hline \end{array}$

Table No. 4.—Whales caught in the Antarctic in the season 1961/62, by species, sex and size.

# Total Antarctic. Blue-whales.

	Num	iber of	Total animals.		Num	ber of	Total
Engl. feet.	males.	females.		Engl. feet.	males.	females.	animals.
59 60 61 62 63 64 65 66 67 68 69 70	2 - 1 3 - 2 3 5 1 1 2 102	- 1 - 3 3 1 1 5 1 94 61	2 1 - 1 6 3 3 4 10 2 2 196 151	81 82 83 84 85 86 87 88 89 90 91 92 93	14 13 10 5 5 4 2 1 1 -	14 22 14 11 19 22 20 18 10 7	28 35 24 16 24 26 22 19 11 7 5 4
$7\overline{2}$	55	60	115	94		3	3
$73 \\ 74$	44 29	37 29	81 58	Sum	508	608	1,116
75 76 77 78 79 80	$egin{array}{c} 24 \\ 25 \\ 11 \\ 20 \\ 16 \\ 18 \\ \end{array}$	31 20 29 19 23 20	55 45 40 39 39 38	Averag Pe	$_{ m ge} $	fales: 'emales: 'otal anima fales: 48 'emales: 54	

#### Fin-whales.

Engl. feet.	Num	ber of	Total	Engl. feet.	Num	ber of	Total
Engi. leec.	males.	females.	animals.	Engl. lect.	males.	females.	animals.
46	2	_	2	70	746	888	1,634
47	_	1	1	71	386	899	1,285
48	-	_	_	72	257	1,074	1,331
49	4	1	$\overline{5}$	73	157	1,282	1,439
50	$\frac{4}{6}$	5	11	74	45	918	963
51	10	3	13	75	22	876	898
52	18	12	30	76	11	618	629
53	34	16	50	77	3	377	380
54	46	27	73	78	2	212	214
55	49	44	93	79	2	127	129
56	22	15	37	80	_	64	64
57	816	680	1,496	81	-	18	18
58	716	599	1,315	82	_	8	$\begin{bmatrix} 8\\2\\1 \end{bmatrix}$
59	609	562	1,171	83	-	2	<b>2</b>
60	655	578	1,233	84	_	1	
61	636	505	1,141	85	-	1	1
62	639	501	1,140	Sum	12,200	14,820	1) 27,020
63	724	510	1,234		1,	1	1 /
64	764	483	1,247		( )	Iales:	64.37 feet
65	883	532	1,415	Averag		Temales:	68.09 ,,
66	1,003	548	1,551		· [ ]	otal anima	ds: 66.41 ,,
67	1,049	583	1,632	1	( T	Malog. 4	5 1 5
68	984	565	1,549	Pe	$\operatorname{cent} \left\{ \begin{array}{l} \frac{n}{1} \end{array} \right\}$	Males: 44 Temales: 54	9.19 1 85
69	900	685	1,585		( 1	emaies: 9	±.00

<sup>1)</sup> In addition 14 fin-whales, length and sex not stated.

#### Humpbacks.

31		1	1	45	2	17	19			
33	-	1	1	46	2	12	14			
34	-	-	Line	47	1	11	12			
35	2	4	6	48	1	7	$\begin{array}{c} 12 \\ 8 \\ 2 \end{array}$			
36	13	7	20	49	_	2	<b>2</b>			
37	5	12	17	Sum	112	197	309			
38	10	16	26				1			
39	10	12	22			Males:	40.39 feet			
40	16	11	27	Averag	$gesize \{ 1$	Temales:	41.92 ,,			
41	16	16	32		ds: 41.37 ,,					
42	14	21	35		Ċ	Males: 3	3.25			
43	10	32	42	Pe	$\operatorname{r} \operatorname{cent} \left\{ \begin{array}{l} \frac{1}{4} \end{array} \right\}$	Temales: 6	9.45 9.75			
44	10	15	25		( 1	remaies: 0	5.10			
	Sei-whales.									
37	_	1	1	53	38	403	441			
38	_	_	_	54	28	298	326			
39	_	1	1	55	8	173	181			
40	7	2	9	56	3	84	87			
41	10	9	19	57	_	26	26			
<b>42</b>	11	4	15	58	_	15	15			
43	35	27	62	59	_	$\frac{2}{3}$	26 15 2 3			
44	52	32	84	60	-	3	3			
45	89	37	126	64	_	1	1			
46	167	67	234	Sum	1,977	3,181	1) 5,158			
47	242	106	348		<u> </u>	·				
48	321	174	495	I		Males:	48.52 feet			
<b>49</b>	341	281	622	Avera		Females:	51.18 ,,			
50	316	403	719	1		Total anima				
51	201	503	704	D <sub>c</sub>			8.33			
52	108	529	637	1	1 (1111)	Females: 6	1.67			

<sup>1)</sup> In addition 4 sei-whales, length and sex not stated.

Table No. 4 (continued).

## Sperm-whales.

	Number of		Total		Num	Total	
Engl. feet.	males.	females.	animals.	Engl. feet.	males.	females.	animals.
34 35	I 1		1 1	$\begin{array}{c} 51 \\ 52 \end{array}$	$\frac{242}{162}$	_	$\begin{array}{c} 242 \\ 162 \end{array}$
$\begin{array}{c} 36 \\ 37 \end{array}$	$\frac{1}{3}$	_	$\frac{1}{3}$	53 5 <b>4</b>	$\begin{array}{c} 82 \\ 34 \end{array}$	_	$\begin{array}{c} 82 \\ 34 \end{array}$
38 39	$\begin{array}{c} 70 \\ 105 \end{array}$	1	71 105	55 56	22 9	_	$\frac{22}{9}$
40 41	$157 \\ 149$	5 1	162 150	57 58	$\frac{2}{2}$	_	$egin{pmatrix} 2 \\ 2 \\ 2 \end{bmatrix}$
42 43	235	1	236	59	1		11
44	$\begin{array}{c} 337 \\ 412 \\ \end{array}$	$\frac{2}{1}$	339 413	Sum	4,791	11	13,802
45 46	$\frac{467}{517}$	_	$\frac{467}{517}$	Averag	e size { F	ales: emales:	46.28 feet 41.00 ,,
47 48	$\begin{array}{c} 484 \\ 514 \end{array}$	-	484 514		`	otal anima ales: 99	
49 50	$\begin{array}{r} 394 \\ 388 \end{array}$	_ _	394 388	Per			.23

<sup>1)</sup> In addition 6 sperm-whales, length and sex not stated.

## Right-whales.

1 Male of 48 feet.

## a. South Georgia.

#### Fin-whales.

_	Num	ber of	Total		Num	Total	
Engl. feet	males.	females.	animals.	Engl. feet.	males.	females.	animals.
47	_	1	1	69	5	12	17
51	1	_	1	70	8	8	16
52	1	1		71	<b>2</b>	11	13
53	${ \frac{1}{2} }$	$egin{array}{c} 1 \ 2 \end{array}$	$egin{array}{c} 2 \ 3 \ 2 \ 1 \end{array}$	72	1	13	14
54	_	2	<b>2</b>	73	_	9	9
55	_	1	1	74		10	10
57	31	33	64	75		10	10 5
58	50	29	79	76		5	5
59	15	19	34	77		1	1
60	36	30	66	78	_	2	2
61	26	22	48	Sum	301	355	656
62	17	20	37				1
63	26	28	54	1	( )	Iales:	61.67 fee
64	23	20	43	Averag			
65	19	28	47	1	T	'emales: 'otal anima	ds: 62.94 "
66	17	13	30		( -		
67	$\begin{array}{c} 11 \\ 10 \end{array}$	14	25	Do	[ N	Iales:48Temales:54	5.88
68	10	12	22	Pe	$_{\mathrm{r}}^{\mathrm{cent}} \left\{ egin{array}{l} \ddot{\mathbf{r}} \end{array}  ight.$	Temales: 54	4.12

## Sei-whales.

	Num	Number of			Num	ber of	Total	
Engl. feet.	males.	females.	Total animals.	Engl. feet.	males.	females.	animals.	
40 41 42 43	$egin{array}{c} -\ 2\ 1\ 4 \end{array}$	1 2 - 3	1 4 1 7	54 55 56	1	15 3 1	16 3 1	
44 45	$11 \\ 28$	6	$17 \\ 34$	Sum	227	215	442	
46 47 48 49 50 51 52 53	28 41 43 42 18 5 3	$6 \\ 3 \\ 13 \\ 16 \\ 28 \\ 33 \\ 41 \\ 24 \\ 20$	31 54 59 70 51 46 27 20		$\mathbf{e} \ \mathbf{size} \left\{ egin{array}{l} \mathbf{I} \\ \mathbf{J} \end{array}  ight.$	Males: Females: Fotal anima Males: 51 Females: 48	ls: 48.63 "	

## Sperm-whales.

Engl. feet.	Number of males.	Engl. feet.	Number of males.
37 38 39 40 41 42 43 44 45	$egin{array}{cccccccccccccccccccccccccccccccccccc$	46 47 48 49 50 51 52 53	17 12 5 6 4 8 6
40	U	Sum	85

Average size: Males: 46.65 feet.

Table No. 4 (continued).

## b. Antarctic, pelagic whaling

#### Blue-whales.

	Number of	Total		Number of		Total	
Engl. feet.	males.	females.	animals.	Engl. feet.	males.	females.	animals.
59	2	_	2	82	13	22	35
60	_	1	$\bar{1}$	83	10	14	24
62	1	_	Ĩ	84	5	11	16
63	$\bar{3}$	3	6	85	5	19	24
64	_	3	3	86	4	22	$\begin{array}{c} 26 \\ 26 \\ 22 \end{array}$
65	<b>2</b>	1	3 3	87	2	20	22
66	3	1	4	88	1	18	19
67	$egin{array}{c} 2 \\ 3 \\ 5 \\ 1 \\ \end{array}$	1 5	10	89	1	10	11
68	1	1	$\frac{2}{2}$	90	_	7	7
69	<b>2</b>	_	2	91		5	5
70	102	94	196	92	-	4	4
71	90	61	151	93	_	1	1
72	55	60	115	94	_	3	3
73	44	37	81	Sum	508	608	1,116
74	29	29	58				
75	24	31	55		( 1)	Iales:	73.75 feet
76	25	20	45	Arrorac	ro gizo J	lanes.	76.65
77	11	29	40	Averag	T C Size	'emales: 'otal anima	70.00 ,, de: 75.33
78	20	19	39		( 1	ovar amma	ds: 75.33 ,,
79	16	23	39		( 1)	Tales 4	5.52
80	18	20	38	Pe	$r \text{ cent } \left\{ \begin{array}{l} \frac{N}{16} \\ \end{array} \right.$	Iales:45'emales:54	1.48
81	14	14	28	J	( 1	omaios. 0:	

#### Fin-whales.

A C	9		9	]	384	888	1 979
46	2	_	$\frac{2}{5}$	71		1	1,272
49	4	1		72	256	1,061	1,317
50	6	5	11	73	157	1,273	<b>1,43</b> 0
51	9	3	12	74	45	908	953
52	17	11	28	75	22	866	888
53	32	15	47	76	11	613	624
<b>54</b>	46	25	71	77	3	376	379
55	49	43	92	78	2	210	212
56	22	15	37	79	$\frac{2}{2}$	127	129
57	785	647	1,432	80	_	64	64
58	666	570	1,236	81	_	18	18
59	594	543	1,137	82	_	8	8
60	619	548	1,167	83	_	2	$\begin{bmatrix} 8\\2\\1 \end{bmatrix}$
61	610	483	1,093	84	_	1	1
62	622	481	1,103	85	-	1	1
63	698	482	1,180	Sum	11,899	14,465	1) 26,364
64	741	463	1,204		122,000	= -,===	, , , , , , , , ,
65	864	504	1,368	l	( I	Males:	64.44 feet
66	986	535	1,521	Avera	$ge size \{ 1$	Females:	68.19 ,,
67	1,038	569	1,607	1		Cotal anima	
68	974	553	1,527	1	( )	Males: 4	5.13
69	895	673	1,568	$P\epsilon$			4.87
70	738	880	1,618	1	Į I	emaies: 5	4.01

<sup>1)</sup> In addition 14 fin-whales, length and sex not stated.

#### Humpbacks

			num	ppacks.				
	Number of	ıb <b>er</b> of	Total		Num	Number of		
Engl. feet.	males.	females.	animals.	Engl. feet.	males.	females.	Total animals.	
31	_	1	1	46	2	12	14	
33		1	1	47	1	11	12	
35	<b>2</b>	4	6	48	1	7	8	
36	13	7	20	49	_	2	2	
37	$\begin{smallmatrix}2\\13\\5\end{smallmatrix}$	12	17	Sum	112	197	309	
38	10	16	26	- Sum	112	10.	1 000	
39	10	12	22		( 1	fales:	40.39	foot
40	16	11	27	Arrono	mo gizo T	laies:	41.92	
41	16	16	32	Averag	ge size $\left\{ \begin{array}{l} \mathbf{F} \\ \mathbf{T} \end{array} \right\}$	'emales: 'otal anima	.la. 41 27	,,
42	14	21	35		( 1	otai amma	118. 41.07	,,
43	10	32	42	1	( )	Talog. 3	6 25	
44	10	15	25	Pe	er cent $\{ \frac{\pi}{4} \}$	Iales:3'emales:6	3.75	
45	2	17	19		( 1	cmaics. o	<b>5.1</b> 0	
			Sei-w	vhales.				
0.7			_			200	010	
$\frac{37}{39}$		1	1	54	27	283	310	
39 40		1	1	55	8	170	178	
41	7 8	$\frac{1}{7}$	8	56	3	83	86	
42	10	1	15	57	_	26	20	
43	$\frac{10}{31}$	$\begin{array}{c c} & 4 \\ & 24 \end{array}$	$\begin{array}{c} 14 \\ 55 \end{array}$	58 59		15	$egin{array}{c} 26 \\ 15 \\ 2 \\ 3 \\ \end{array}$	
44	41	$\frac{24}{26}$	67	60	_	$\frac{2}{3}$	3	
45	61	31	$\frac{67}{92}$	64	_	1	1	
46	139	64	203		1750			
47	<b>2</b> 01	93	294	Sum	1,750	2,966	<sup>1</sup> ) 4,716	
48	$\overline{278}$	158	436		( N	Iales:	48.68 f	feet
49	299	253	552	Averas	$_{ m ge}$ size $\left\{egin{array}{c} ar{ m F} \end{array} ight.$	'emales:	51.27	,,
50	298	370	668		r	otal anima		,,
51	196	462	658		-			•
52	105	505	610	Pe	$\operatorname{cent} \left\{ \begin{array}{l} N \\ T \end{array} \right\}$	Iales: 3' 'emales: 6'	1.11	
53	38	383	<b>421</b>		T J	emaies: 6	2.89	

<sup>1)</sup> In addition 4 sei-whales, length and sex not stated.

## Sperm-whales.

34 35 36 37 38 39 40 41	$\begin{array}{c c} 1 \\ 1 \\ 2 \\ 68 \\ 104 \\ 156 \\ 148 \\ \end{array}$	- - - 1 - 5	1 1 1 2 69 104 161 149	51 52 53 54 55 56 57 58	234 156 81 34 22 9	- - - - - -	234 156 81 34 22 9 2
41 42 43 44 45 46	232 336 402 461 500	1 2 1 -	149 233 338 403 461 500	59 Sum	1 4,706 M	11 ales:	1 1 4,717 46.27 feet
47 48 49 50	472 509 388 384	_ _ _ _	472 509 388 384	Averag Per	{ To	emales: otal animal ales: 99 emales: 0	,,,

<sup>1)</sup> In addition 6 sperm-whales, length and sex not stated.

#### Right-whales.

1 Male of 48 feet.

Table No. 5.—Whales caught in the Antarctic in the season 1961/62, by species, sex and groups of size.

# Total Antarctic. Blue-whales.

	Number of whales.	Per cent
roup 1. (70 feet and less)	230 788 98	20.61 70.61 8.78
	1,116	100.00
Immature males	310 347	$61.02 \\ 57.07$
" animals	657	58.87
Mature males	198 <b>261</b>	$\frac{38.98}{42.93}$
,, animals	459	41.13

#### Fin-whales.

	Number of whales.	Per cent.
Group 1. (55 feet and less)	278	1.03
,, 2. (56 feet to and incl. 65 feet)	11,429	42.30
,, 3. (above 65 feet)	15,313	56.67
	27,020	100.00
mmature males	4,262	34.93
, females	4,542	30.65
" animals	8,804	32.58
Mature males	7,938	65.07
,, females	10,278	69.35
" animals	18,216	67.42

## a. South Georgia. Blue-whales.

	Number of whales.	Per cent.
Group 1. (70 feet and less)	eron.	-
,, 2. (71 feet to and incl. 85 feet)	_	
,, 2. (71 feet to and incl. 85 feet)		_
		Name of Street
Immature males		_
" females		
,, animals	-	_
Mature males	_	
" females	-	_
" animals		

## Fin-whales.

	Number of whales.	Per cent.
Group 1. (55 feet and less), ,, 2. (56 feet to and incl. 65 feet), ,, 3. (above 65 feet)	$egin{array}{c} 10 \\ 472 \\ 174 \\ \end{array}$	1.52 $71.95$ $26.53$
" o. (above of feet)	656	100.00
Immature males	179 207	$59.47 \\ 58.31$
" animals	386	58.84
Mature males, females	122 148	$\frac{40.53}{41.69}$
" animals	270	41.16

# b. Antarctic, pelagic whaling. Blue-whales.

	Number of whales.	Per cent.
Group 1. (70 feet and less)	230 788 98	20.61 70.61 8.78
	1,116	100.00
Immature males	310 347	$61.02 \\ 57.07$
,, animals	657	58.87
Mature males	$\begin{array}{c} 198 \\ 261 \end{array}$	$\frac{38.98}{42.93}$
" animals	459	41.13

#### Fin-whales.

	Number of whales.	Per cent.
Group 1. (55 feet and less)	268 10,957 15,139	1.02 $41.56$ $57.42$
, ( , , , , , , , , , , , , , , , , , ,	26,364	100.00
Immature males	4,083	34.31
,, females, animals	4,335 8,418	$\frac{29.97}{31.93}$
Mature males	7,816 10,130	65,69 70.03
,, animals	17,946	68.07

Table No. 6.—Average production of oil per blue-whale unit in the Antarctic in the season 1961/62.

Other whales are reduced to blue-whale equivalents on the following basis:—
1 blue-whale = 2 fin-whales =  $2\frac{1}{2}$  humpbacks = 6 sei-whales.

		Blue-whale	Oil p	roduction.
Geographical areas.	Company.	units.1)	Total.	Average per blue-whale unit.
			Barrels <sup>2</sup>	Barrels <sup>2</sup>
South Georgia	No. 1	401.7	45,359	112.9
Antarctic, pelagic whaling	No. 1	456.7	68,175	149.3
	$\frac{1}{2}$	599.5	86,787	144.8
	,, 3	588.5	84,539	143.7
	, 4 ,, 5	537.8	73,389	136.5
A de la companya de l	,, 5	483.8	66,026	136.5
	,, 6	614.0	82,154	133.8
	,, 7	605.1	78,990	130.5
	,, 8	579.0	74,106	128.0
	,, 9	1,004.0	126,765	126.3
	,, 10	1,250.5	150,481	120.3
	,, 11	611.9	72,770	118.9
	,, 12	856.1	101,000	118.0
	,, 13	697.4	81,998	117.6
	,, 14	283.1	33,013	116.6
	" 15	729.6	84,365	115.6
	,, 16	611.2	68,703	112.4
	,, 17	952.0	106,294	111.7
	,, 18	972.5	96,212	98.9
	<b>,,</b> 19	1,050.6	100,647	95.8
	,, 20	903.5	84,588	93.6
	,, 21	829.0	76,176	91.9
Total		15,215.8	1,797,178	118.1

<sup>1)</sup> This refers to whales worked up. 2) Barrel = 170 kg. (Barrel = abt. 1/6 long ton, 1 long ton = 1,016 kg.)

Table No. 7.—Size of pregnant whale females caught in the Antarctic in the season 1961/62.

Blue-whale females.

Length of mothers.	Number of pregnant animals.	Length of mothers.	Number of pregnant animals.	
Engl. feet. 70 71 72 73 74 75 76 77 78 79 80 81	9 4 4 4 3 3 2 4 3 6 2 2	Engl. feet.  82 83 84 85 86 87 88 89 90 92 Total	5 1 2 10 9 8 7 4 2 2	Number of foetuses measured

## Fin-whale females.

Length of mothers.	Number of pregnant animals.	Length of mothers.	Number of pregnant animals.	Number of foetuses meas-
Engl. feet. 57 59 60 61 62 63 64	1 2 3 6 13 23 46	Engl. feet. 72 73 74 75 76 77	633 786 604 598 432 253 133	ured
65 66 67 68 69 70 71	93 164 249 268 347 496 553	79 80 81 82 83 84 Total	89 44 12 6 1 1 5,856	whale females (above 64 feet) measured 10,278, of which pregnant animals 5,762, or 56.06 per cent.

## Humpback females.

Length of mothers.	Number of pregnant animals.	Length of mothers.	Number of pregnant animals.	Number of foetuses measured 106
Engl. feet.		Engl. feet.		Total number of humpback fe-
36	1	44	12	males measured 197, of which
37	1	45	13	pregnant animals 106, or 53.81
38	3	46	9	per cent.
39	4	47	9	Total number of mature hump-
40	8	48	7	back females (above 40 feet) meas-
41	7			ured 133, of which pregnant ani-
<b>42</b>	15	Total	106	mals 89, or 66.92 per cent.
43	17	10001		

## Sei-whale females.

Length of mothers.	Number of pregnant animals.	Length of mothers.	Number of pregnant animals.	
Engl. feet.		Engl. feet.		
43	2	53	198	Number of foetuses meas-
44	4	54	152	ured
45	4	55	86	of which twin pairs 16
46	21	56	41	or which twin page
47	43	57	12	
48	75	58	6	
<b>49</b>	13 <b>4</b>	59	1	
50	196	60	1	
51	248	64	1	
52	260	Total	1,485	

## Sperm-whale females.

<sup>2</sup> pregnant animals of 40 feet. — Number of foetuses measured 2.

Table No. 8.—Whale foetuses measured in the Antarctic in the season 1961/62, by species and groups of size, in each month.

## Blue-whale foetuses.

Groups of size. Engl. feet.	February	March	April	Total
0′— 0′ 11″			1	1
1'— 1' 11"			1	1
3'— 3' 11"	2			$^2$
4'— $4'$ $11''$	-			
5'— 5' 11"	1			1
6' 6' 11"	3	***	-	3
7′— 7′ 11″	1	Manual	_	1
8'— 8' 11"	5	1		6
9' 9' 11"	5		No.	5
10′—10′ 11″	1	3		$\bf 4$
11′—11′ 11″	6			6
12′—12′ 11″	8	3		11
13′—13′ 11″	14	4		18
14'—14' 11"	$^2$	4		6
15′—15′ 11″	5	4	-	9
16'—16' 11"	6		3	9
17′—17′ 11″	3	1	1	5
18′—18′ 11″	1	3		4
19′—19′ 11″	1	_		1
20′—20′ 11″		1	1	<b>2</b>
23′—23′ 11″			1	1
Total blue-whale foetuses	64	24	8	96
Average size of foetuses	12' 2"	$14^{7}2''$	<b>13′</b> 10″	12′ 10″

#### Fin-whale foetuses.

Groups of size. Engl. feet.	Oct.	Nov.	Dec.	Jan.	Febr.	March	April	Total
0' 0' 11"		_	28	50	10	1	_	89
1′— 1′ 11″	3	_	66	72	27	9	-	177
2'— 2' 11"	1	2	96	134	73	29		335
3′— 3′ 11″	-	3	138	150	97	47	1	<b>436</b>
4'— 4' 11"		1	117	206	111	41	1	477
<b>5</b> ′— 5′ 11″	-		138	237	113	57		545
6'— 6' 11"		2	96	250	141	65	4	558
7′— 7′ 11″	_	-	88	200	166	96	1	551
8′— 8′ 11″	_		43	190	181	91	3	508
9′— 9′ 11″	_	****	19	124	170	89	3	405
10′—10′ 11″		-	6	138	164	114	2	424
11′—11′ 11″			1	61	118	96	1	277
12′—12′ 11″	-	-	_	57	132	102	1	292
13′—13′ 11″	-	-		13	89	143	1	246
14′—14′ 11″		_	-	18	67	127	2	214
15′—15′ 11″			1	1	35	97	6	140
16′—16′ 11″			_	1	15	71	3	90
17′—17′ 11″				3	4	63	4	74
18′—18′ 11″	_			_	3	50	5	58
19′—19′ 11″	_				1	12	1	14
20′—20′ 11″	_		1	_		8	2	11
21′—21′ 11″				_	_	1	-	1
22′—22′ 11″		-			-	2		<b>2</b>
23′—23′ 11″			_	_		1	-	1
Total fin-whale foetuses	4	8	838	1,905	1,717	1,412	41	5,925
Average size of foetuses	1' 8"	3' 7"	4' 8"	6' 4"	8' 5"	11' 2"	12′ 11″	7′ 11″

## Humpback foetuses.

Groups of size. Engl. feet.	Jan.	April	Total.
0'—0' 11" 1'—1' 11" 2'—2' 11" 3'—3' 11" 4'—4' 11" 5'—5' 11"	$   \begin{array}{c}     1 \\     32 \\     51 \\     15 \\     5 \\     1 \\     \hline     105   \end{array} $	- - - 1 - 1	$ \begin{array}{c c} 1\\ 32\\ 51\\ 15\\ 6\\ 1\\ \hline 106 \end{array} $
Average size of foetuses	2' $4''$	4′ 0″	2' 4"

#### Sei-whale foetuses.

Groups of size. Engl. feet	Dec.	Jan.	Febr.	March.	April.	Total.
1'— 1' 11"  2'— 2' 11"  3'— 3' 11"  4'— 4' 11"  5'— 5' 11"  6'— 6' 11"  7'— 7' 11"  8'— 8' 11"  10'—10' 11"  11'—11' 11"  12'—12' 11"  13'—13' 11"	1 4 9 15 6 4 1 - -	1 2 18 34 39 55 37 24 7 3	1 2 13 20 31 66 81 87 76 76 35 16	1 2 5 22 20 35 45 76 84 106 100 81	- - 1 - 4 5 3 8 7 14 17	4 10 45 92 96 164 169 190 175 192 150 114
14'—14' 11"	_	_	1	13	4	18
15′—15′ 11″	-	_	_	9	-	9
<u>16'—16' 11"</u>				2		2
Total sei-whale foetuses	40	221	513	650	77	1,501
Average size of foetuses	4' 4"	6' 2"	8′ 4″	9′ 10″	11′ 0″	8′ 8″

## Sperm-whale foetuses.

Groups of size, Engl. feet	November
2'— $2'$ $11''$	1 1
Total sperm-whale foetuses Average size of foetuses	7′3″

Table No. 9.—Whale foetuses measured in the Antarctic in the season 1961/62, by species and sex, in each month.

Kind of foetuses.	Num	ber of	Sex not	Total	Number of males per 100	
Months.	males. females.		stated.	foetuses.	females.	
Blue-whale foetuses.						
February	33	31		64	106.45	
March	12	12	_	24	100.00	
April	4	4	_	8	100.00	
Total	49	47	_	96	104.26	

Table No. 9 (continued).

Kind of foetuses.	Num	ber of	Sex not	Total	Number of males per 100
Months.	males.	females.	stated.	foetuses.	females.
Fin-whale foetuses.					
October	$^2$	2	_	4	100.00
November	$\bar{5}$	$\bar{3}$	_	$\bar{8}$	166.67
December	438	393	7	838	111.45
January	934	966	5	1,905	96.69
February	847	870		1,717	97.36
March	710	702	_	1,412	101.14
April	15	26	_	41	57.69
Total	2,951	2,962	12	5,925	99.63
Humpback foetuses.					
January	56	49		105	114.29
April		1		103	114.20
Total	56	50		106	112.00
Total				100	112.00
Sei-whale foetuses.					
December	30	10	_	40	300.00
January	120	100	1	221	120.00
February	270	243	-	513	111.11
March	315	333	2	650	94.59
April	32	45	-	77	71.11
Total	767	731	3	1,501	104.92
Sperm-whale foetuses.					700.00
November	1	1		2	100.00

