

DET NORSKE HVALRÅDS STATISTISKE PUBLIKASJONER

# INTERNATIONAL WHALING STATISTICS

XLVIII

EDITED BY  
THE COMMITTEE FOR WHALING STATISTICS



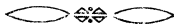
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## PREFACE

The present publication, International Whaling Statistics No. XLVIII, embraces the results of the Antarctic whaling during the season 1960-61.

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

Oslo, February 1962.

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*Einar Vangstein.*



## INTRODUCTION

### *Regulative provisions.*

As it will appear from the introduction to International Whaling Statistics No. XLVI, the Netherlands and Norway withdrew from the International Whaling Convention as from July 1st 1959. The reason for this step was the failure of the countries engaged in pelagic whaling in the Antarctic to arrive at an agreement on the establishment of national quotas. In order to facilitate the re-entry of these two countries to the Convention, it was decided at the meeting of the International Whaling Commission in 1960 to suspend the maximum catch for the seasons 1960-61 and 1961-62.

In connection with the suspension of the maximum catch, the Commission resolved to appeal to Norway and the Netherlands to rejoin the Convention. The Norwegian government complied with the appeal and Norway became member from September 23rd 1960.

The Netherlands government replied that they were prepared to rejoin the Convention when an agreement had been reached on the establishment of national quotas for the countries engaged in Antarctic pelagic whaling.

At the meeting of the Commission in 1960, the following resolution was also 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 1960-61 the various countries stipulated the following maximum catches:

	Season 1960-61 Blue-whale units
Norway .....	5,800
Japan .....	5,980
United Kingdom .....	1,800
The Netherlands.....	1,200
U.S.S.R. ....	3,000

Japan and the U.S.S.R. entered a protest against the suspension of the maximum catch, and for these two countries the regulation of a



maximum catch of 15,000 blue-whale units was in force. The Committee of International Whaling Statistics fixed April 1st, as the date on which the member countries might have reached a catch of 15,000 units. The Russian expeditions terminated their catch on that date. The Japanese expeditions, however, terminated at a somewhat earlier date, having then reached the above mentioned national quota. Since the Norwegian and the British expeditions had suspended the maximum catch, they continued their whaling operations until April 7th. The Netherlands terminated on April 5th.

At the meeting of the Commission in 1960 it was resolved that the taking of blue-whales should not commence before February 14th. It was also resolved to introduce certain limitations on the catch of humpback whales. Japan objected, however, to these resolutions, and consequently objections were filed also by United Kingdom, U.S.S.R. and Norway.

The previous regulations regarding the taking of blue- and humpback whales were therefore effective for all the countries operating in the Antarctic.

The most important regulations in the International Whaling Convention for countries operating in the Antarctic in the season 1960-61 were thus as follows:—

1. The open season for the taking of fin- and sei-whales was from December 28th.
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. The number of baleen whales taken during the open season in any waters south of 40° South Latitude by whale catchers attached to factory ships under the jurisdiction of the Contracting Governments was not to exceed 15,000 blue-whale units. (As one blue-whale unit is reckoned 1 blue-whale or 2 fin-whales or 2½ humpbacks or 6 sei-whales.)
6. 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.

7. The taking of humpback whales was prohibited between 0° and 60° West Longitude.

8. The open season for sperm-whales was 8 months and the minimum size limit was 38 feet.

The shore stations on South Georgia were allowed a 6 months' consecutive catching period, and were otherwise subject to the same provisions as stated in paragraphs 6, 7 and 8, except that the minimum size limit for sperm-whales was 35 feet.

#### *Whaling period.*

In the seasons 1954/55–1958/59 the fin- and sei-whale season commenced on January 7th. At the meeting of the Commission in 1959 it was resolved that the catch could commence on December 28th with the same date of termination as previously, viz. April 7th. In the season 1960–61 all expeditions, except the one from the Netherlands, commenced whaling (according to reports sent to International Whaling Statistics) on December 28th.

Below is given the period of operation and closing date during the last season for the individual expeditions:

Expeditions	Whaling period, season 1960–61	Catching days
Norwegian .....	December 28th–April 7th	101
British .....	December 28th–April 7th	101
Russian .....	December 28th–April 1st	95
Japanese:		
Kinjyo Maru.....	December 28th–March 15th	78
Nisshin Maru No. 2 ..	December 28th–March 16th	79
Tonan Maru No. 2....	December 28th–March 17th	80
Nisshin Maru .....	December 28th–March 21st	84
Tonan Maru .....	December 28th–March 22nd	85
Kyokuyo Maru No. 2.	December 28th–March 25th	88
Kyokuyo Maru No. 3.	December 28th–March 25th	88
The Netherlands .....	November 28th–April 5th	129
	Average	95

The catching period for all floating factories averaged about 95 days in 1960–61 as compared with 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 on the next page.

## Whaling period and number of catching days:—

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

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

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. From the survey on page 12 will be seen the whaling period for humpbacks since 1949-50.

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

Season 1958—59.		Season 1959—60.		Season 1960—61.	
Week ending	Number of blue-whale units	Week ending	Number of blue-whale units	Week ending	Number of blue-whale units
—	—	<sup>28</sup> / <sub>12</sub> — <sup>2</sup> / <sub>1</sub>	<sup>1</sup> ) 1,400	<sup>28</sup> / <sub>12</sub> — <sup>31</sup> / <sub>12</sub>	<sup>3</sup> ) 1,079
<sup>7</sup> / <sub>1</sub> — <sup>10</sup> / <sub>1</sub>	1,038	<sup>9</sup> / <sub>1</sub>	1,416	<sup>7</sup> / <sub>1</sub>	1,221
<sup>17</sup> / <sub>1</sub>	1,593	<sup>16</sup> / <sub>1</sub>	1,323	<sup>14</sup> / <sub>1</sub>	1,394
<sup>24</sup> / <sub>1</sub>	1,772	<sup>23</sup> / <sub>1</sub>	1,490	<sup>21</sup> / <sub>1</sub>	1,549
<sup>31</sup> / <sub>1</sub>	1,564	<sup>30</sup> / <sub>1</sub>	1,151	<sup>28</sup> / <sub>1</sub>	1,173
<sup>7</sup> / <sub>2</sub>	2,189	<sup>6</sup> / <sub>2</sub>	1,455	<sup>4</sup> / <sub>2</sub>	1,268
<sup>14</sup> / <sub>2</sub>	1,361	<sup>13</sup> / <sub>2</sub>	1,019	<sup>11</sup> / <sub>2</sub>	1,687
<sup>21</sup> / <sub>2</sub>	1,040	<sup>20</sup> / <sub>2</sub>	1,150	<sup>18</sup> / <sub>2</sub>	1,175
<sup>28</sup> / <sub>2</sub>	1,530	<sup>27</sup> / <sub>2</sub>	1,118	<sup>25</sup> / <sub>2</sub>	1,222
<sup>7</sup> / <sub>3</sub>	1,479	<sup>5</sup> / <sub>3</sub>	937	<sup>4</sup> / <sub>3</sub>	1,071
<sup>14</sup> / <sub>3</sub>	1,346	<sup>12</sup> / <sub>3</sub>	627	<sup>11</sup> / <sub>3</sub>	1,139
<sup>16</sup> / <sub>3</sub>	376	<sup>19</sup> / <sub>3</sub>	901	<sup>18</sup> / <sub>3</sub>	941
		<sup>26</sup> / <sub>3</sub>	794	<sup>25</sup> / <sub>3</sub>	740
		<sup>2</sup> / <sub>4</sub>	267	<sup>1</sup> / <sub>4</sub>	463
		<sup>7</sup> / <sub>4</sub>	<sup>2</sup> ) 458	<sup>7</sup> / <sub>4</sub>	300
Total <sup>7</sup> / <sub>1</sub> — <sup>16</sup> / <sub>3</sub> (69 days)	15,288	Total <sup>28</sup> / <sub>12</sub> — <sup>7</sup> / <sub>4</sub> (102 days)	15,506	Total <sup>28</sup> / <sub>12</sub> — <sup>7</sup> / <sub>4</sub> (101 days)	16,422

<sup>1</sup>) Includes the catch of one expedition from and incl. December 16th 1959.

<sup>2</sup>) Includes the catch of one expedition up to and incl. April 15th 1960.

<sup>3</sup>) 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—1960/61.**

Seasons	Floating factories			Catchers			
	Number	Gross tonnage	Average gross tonnage per fl. factory	Number	Gross tonnage	Average per catcher of:	
						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 <sup>1</sup> )..	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

<sup>1</sup>) Excl. fl.f. "Baikal Maru" with 5 catchers. Catch of sperm-whales only.

## Whaling period for humpbacks since 1949-50 :—

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

*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 the seasons 1959-60 and 1960-61, it must be taken into account that some of the expeditions terminated the 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 February 5th to February 11th, was 1,687 blue-whale units, and the lowest (with all expeditions in operation) from February 26th to March 4th, was 1,071 blue-whale units. The corresponding figures during the season 1959-60 were 1,490 units (January 17th-23rd) and 627 units (March 6th-12th).

*Whaling matériel.*

During the Antarctic season 1960-61 5 countries were participating with a total of 21 floating factories and 252 catchers. This is one floating factory more than in the season 1959-60, namely the new Russian factory ship "Juri Dolgorukij". Further, one British floating factory was in 1960 sold to Japan, and the Japanese companies had thus 7 pelagic expeditions in the Antarctic during the last season, compared with 6 during the three preceding seasons.

In addition to the pelagic whaling fleet 3 shore stations with 16 catchers were operating from South Georgia. Two of these stations were, however, operated as one unit. In the previous seasons back to 1947-48 3 shore stations with 21 catchers carried on whaling from South Georgia.

The survey on next page shows the distribution of the pelagic whaling fleet by countries during the three last seasons.

Table c.—Total whaling in the Antarctic.

Years.	Species of whales caught.						Total of whales.	Oil production.	Expeditions.			Number of whales per boat.
	Blue.	Fin.	Hump-back.	Sei.	Sperm.	Others.			Shore stations.	Floating factories.	Catchers.	
1919-20	1,874	3,213	261	71	8	1 <sup>1)</sup> 14	5,441	272,817	6	6	44	124
1920-21	2,617	5,491	260	36	31	1 <sup>1)</sup> 13	8,448	390,627	6	8	47	180
1921-22	4,416	2,492	9	103	3	—	7,023	452,517	6	8	46	153
1922-23	5,683	3,677	517	10	23	—	9,910	614,547	6	13	60	165
1923-24	3,732	3,035	233	193	66	1 <sup>1)</sup> 12	7,271	464,678	6	14	66	110
1924-25	5,703	4,366	359	1	59	—	10,488	697,091	6	13	65	161
1925-26	4,697	8,916	364	195	37	1 <sup>1)</sup> 10	14,219	783,307	6	15	70	203
1926-27	6,545	5,102	189	778	39	1 <sup>1)</sup> 12	12,665	872,362	6	17	80	158
1927-28	8,334	4,459	23	883	72	1 <sup>1)</sup> 4	13,775	1,037,392	6	18	84	164
1928-29	12,734	6,689	48	808	62	—	20,341	1,631,340	6	26	111	183
1929-30	17,898	11,614	853	216	73	1 <sup>1)</sup> 1	30,655	2,546,759	6	38	194	158
1930-31	29,410	10,017	576	145	51	1 <sup>1)</sup> 2	40,201	3,608,348	6	41	232	173
1931-32	6,488	2,871	184	16	13	—	9,572	808,560	2	5	45	213
1932-33	18,891	5,168	159	2	107	—	24,327	2,456,462	1	17	118	206
1933-34	17,349	7,200	872	—	666	—	26,087	2,395,544	2	19	126	207
1934-35	16,500	12,500	1,965	266	577	—	31,808	2,453,999	2	23	153	208
1935-36	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 <sup>1)</sup> 1	34,579	2,658,108	2	30	196	176
1937-38	14,923	28,009	2,079	161	867	—	46,039	3,340,330	2	31	256	180
1938-39	14,081	20,784	883	22	585	1 <sup>1)</sup> 1	38,356	2,820,771	2	34	281	136
1939-40	11,480	18,694	2	81	1,938	2 <sup>2)</sup> 705	32,900	2,544,253	2	28	240	137
1940-41	4,943	7,831	2,675	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 <sup>1)</sup> 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	2,143	1,284	2,727	—	32,396	2,166,489	3	18	237	137
1950-51	7,048	19,456	1,638	886	4,968	3 <sup>3)</sup> 1	33,997	2,303,690	3	19	260	131
1951-52	5,130	22,527	1,556	530	5,485	4 <sup>4)</sup> 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 <sup>4)</sup> 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	560	6,974	4 <sup>4)</sup> 42	38,580	2,307,171	3	19	278	139
1956-57	1,512	27,757	679	1,692	4,429	4 <sup>4)</sup> 46	36,115	2,246,922	3	20	246	147
1957-58	1,690	27,473	396	3,309	6,535	4 <sup>4)</sup> 493	39,896	2,317,638	2	20	257	155
1958-59	1,192	27,128	2,394	2,421	5,652	4 <sup>4)</sup> 103	38,890	2,152,659	3	20	256	152
1959-60	1,239	27,575	1,338	4,309	4,227	4 <sup>4)</sup> 204	38,892	2,148,438	3	20	241	161
1960-61	1,744	28,761	718	5,102	4,800	5 <sup>5)</sup> 164	41,289	2,232,884	3	21	268	154

<sup>1)</sup> Right-whales. <sup>2)</sup> 703 "Baleen-whales" no specification given. 2 right-whales. <sup>3)</sup> Bottlenose. <sup>4)</sup> Minke-whales. <sup>5)</sup> 2 right-whales and 162 Minke-whales.

Countries	Season 1953-59		Season 1959-60		Season 1960-61	
	Floating factories	Catchers	Floating factories	Catchers	Floating factories	Catchers
Norway . . . . .	9	93	8	70	8	81
United Kingdom . . . . .	3	37	3	31	2	22
Netherlands . . . . .	1	12	1	13	1	14
Japan . . . . .	6	69	6	69	7	83
U. S. S. R. . . . .	1	24	2	37	3	52
Total	20	235	20	220	21	252

Table d.—Pelagic whaling in the Antarctic.<sup>1</sup>

Years.	Species of whales caught.						Total of whales.	Oil production.	Expeditions.			Number of whales per boat.
	Blue.	Fin.	Hump-back.	Sei.	Sperm.	Others.			Shore stations.	Floating factories.	Catchers.	
1919-20	887	1,540	182	-	-	-	2,609	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	-	-	-	-	3,628	203,475	1	8	26	140
1922-23	2,114	2,232	197	-	4	-	4,547	266,994	1	12	37	123
1923-24	1,805	1,657	103	2	17	<sup>2</sup> ) 12	3,596	217,215	1	13	43	84
1924-25	2,191	2,347	97	-	35	-	4,670	290,915	1	12	41	114
1925-26	2,842	3,207	128	182	25	<sup>2</sup> ) 10	6,394	378,850	1	14	47	136
1926-27	2,856	3,958	189	413	22	<sup>2</sup> ) 12	7,450	455,070	1	16	57	131
1927-28	6,209	3,102	23	788	12	<sup>2</sup> ) 4	10,138	733,912	1	17	61	166
1928-29	11,174	3,559	33	412	31	-	15,209	1,282,711	1	25	88	173
1929-30	17,410	8,218	807	-	34	-	26,469	2,298,796	1	38	167	158
1930-31	28,325	8,601	510	1	27	<sup>2</sup> ) 1	37,465	3,420,410	1	41	205	183
1931-32	6,050	1,136	178	-	3	-	7,367	686,355	-	5	33	223
1932-33	18,624	4,441	159	-	107	-	23,331	2,401,879	-	17	112	208
1933-34	16,813	5,472	780	-	659	-	23,724	2,263,357	-	19	114	208
1934-35	15,944	11,664	1,928	141	556	-	30,233	2,345,858	-	23	143	211
1935-36	16,510	9,177	3,121	2	396	-	29,206	2,293,153	-	24	165	177
1936-37	14,183	13,302	4,460	19	856	<sup>2</sup> ) 1	32,821	2,576,479	-	30	184	178
1937-38	14,826	26,457	2,039	6	824	-	44,152	3,250,064	-	31	244	181
1938-39	13,849	19,477	883	3	2,468	<sup>2</sup> ) 1	36,681	2,709,281	-	34	270	136
1939-40	11,392	17,757	2	1	1,853	<sup>3</sup> ) 704	31,709	2,479,471	-	28	228	139
1940-41	4,936	7,084	2,675	22	778	-	15,495	1,055,510	-	11	88	176
1941-42	-	-	-	-	-	-	-	-	-	-	-	-
1942-43	-	-	-	-	-	-	-	-	-	-	-	-
1943-44	311	526	-	-	-	-	837	82,000	-	1	8	105
1944-45	914	679	-	2	-	-	1,595	148,000	-	1	8	199
1945-46	3,526	7,729	-	3	216	-	11,474	739,775	-	9	77	149
1946-47	8,865	12,877	1	2	1,298	-	23,043	1,794,424	-	15	129	175
1947-48	6,862	18,999	2	12	2,494	-	28,369	1,940,653	-	17	162	149
1948-49	7,399	17,201	13	16	3,865	-	28,494	2,047,427	-	18	191	179
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	<sup>4</sup> ) 1	31,180	2,152,498	-	19	239	130
1951-52	5,124	20,520	1,546	32	5,344	<sup>5</sup> ) 9	32,575	2,334,805	-	20	268	122
1952-53	3,866	21,197	954	123	2,185	-	28,325	1,998,094	-	16	230	123
1953-54	2,684	24,986	594	251	2,700	<sup>5</sup> ) 3	31,218	2,100,884	-	17	206	152
1954-55	2,163	25,878	493	146	5,708	-	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	<sup>5</sup> ) 46	32,987	2,098,854	-	20	225	147
1957-58	1,684	25,222	396	2,385	6,310	<sup>5</sup> ) 493	36,490	2,146,206	-	20	237	154
1958-59	1,191	25,837	2,394	1,402	5,437	<sup>5</sup> ) 103	36,364	2,050,241	-	20	235	155
1959-60	1,230	26,415	1,338	3,234	4,138	<sup>5</sup> ) 204	36,559	2,050,892	-	20	220	166
1960-61	1,740	27,374	718	4,310	4,666	<sup>6</sup> ) 164	38,972	2,123,157	-	21	252	155

<sup>1</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.

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 engine capacity of the catchers increased from 2,390 I.H.P. in 1958-59 to 2,557 I.H.P. in 1959-60 and to 2,614 I.H.P. in 1960-61.

Table e.—Average production per floating factory and catcher in the pelagic whaling in Antarctic 1930/31—1938/39 and 1947/48—1960/61.

I. Floating factories:

Seasons.	Total production of whale oil.	Total number of fl. fact.	Average production per fl. fact.	Catching days.		Total production per day for the whole fleet.	Average production per floating factory's day-work.
				Total.	Average		
	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	102	31,384	1,014
1938-39 .....	2,564,506	34	75,427	3,273	96	26,714	784
1947-48 .....	1,809,560	17	106,445	1,914	113	16,014	945
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

II. Catchers:

Seasons.	Total production of whale oil.	Total number of catchers.	Average production per catcher.	Catching days.		Average oil production per catcher's day-work.	Average number of whales caught <sup>1)</sup> per catcher's day-work
				Total.	Average per catcher.		
	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....	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....	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
1947-48....	1,809,560	162	11,170	17,747	110	102	1.46
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....	2,054,853	263	7,813	16,902	64	122	1.61
1952-53....	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....	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

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



From the survey below 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.

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	225	11.3
1957–58	20	237	11.9
1958–59	20	235	11.8
1959–60	20	220	11.0
1960–61	21	252	12.0

In 1960–61 the Norwegian companies used on an average 10.1 catchers per floating factory, the British expeditions 11.0, the Japanese expeditions 11.9, the Netherlands expedition 14.0 and the Russian expeditions 17.3 catchers.

#### *Catch results.*

The total catch of the pelagic expeditions in the season 1960–61 amounted to 34,144 baleen whales, which, converted into blue-whale units, gave 16,433.5 units. This was 922 units more than obtained in the season 1959–60. The catch in 1960–61 with specification in respect to the various species of whales killed, was as follows:

Species of whales	Captured whales	Of which lost whales	Processed whales	Catch in blue-whale units
Blue-whales . . . . .	1,740	1	1,739	1,740.0
Fin-whales . . . . .	27,374	75	27,299	13,687.0
Humpbacks . . . . .	718	9	709	287.2
Sei-whales . . . . .	4,310	30	4,280	718.3
Right-whales . . . . .	2	—	2	1.0
Total baleen whales . . . . .	34,144	115	34,029	16,433.5
Sperm-whales . . . . .	4,666	12	4,654	—
Total of whales <sup>1)</sup> . . . . .	38,810	127	38,683	16,433.5

<sup>1)</sup> In addition 162 Minke-whales and 64 killer-whales were taken,

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

Years.	Species of whales caught.					
	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

The pelagic catch in blue-whale units in the season 1960-61 was apportioned among the participating countries as follows:

Norway .....	5,199.8 blue-whale units
Japan .....	5,979.9 —»—
United Kingdom .....	1,456.2 —»—
The Netherlands .....	1,011.0 —»—
U. S. S. R. ....	2,786.6 —»—
Total	16,433.5 blue-whale units

The pelagic expeditions processed in 1960-61 16,386.6 blue-whale units, from which were produced 1,915,118 barrels whale-oil. From 4,654 sperm-whales there were produced 208,039 barrels sperm-oil.

The total whaling results in the Antarctic from 1919-20 up to and

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

Species of whales, and seasons.	Nov.	Dec.	Jan.	Feb.	March.	April.	Total.	The Whaling Statistics' total figures.	
<i>Total animals.</i>	1938-39..	1,362	10,138	12,618	9,978	2,569	—	1) 36,665	1) 36,681
	1952-53..	64	1,444	12,302	9,764	4,465	—	28,039	28,325
	1953-54..	141	1,875	12,320	10,295	6,239	—	30,870	31,215
	1954-55..	424	3,480	12,842	11,401	5,914	—	34,061	34,388
	1955-56..	665	4,183	13,813	14,750	1,846	—	35,257	35,489
	1956-57..	373	2,753	11,483	14,000	4,114	—	32,723	32,941
	1957-58..	1,259	3,669	11,428	11,886	7,575	—	35,817	35,997
	1958-59..	731	3,477	12,628	12,800	6,453	—	36,089	36,261
	1959-60..	359	4,464	12,917	10,710	6,584	1,144	36,178	36,355
1960-61..	1,086	4,104	12,445	11,491	8,559	996	38,681	38,808	
<i>Blue- whales.</i>	1938-39..	849	5,128	4,892	2,365	605	—	13,839	13,849
	1952-53..	—	6	2,150	1,249	441	—	3,847	3,866
	1953-54..	1	1	567	1,365	734	—	2,667	2,684
	1954-55..	—	—	645	965	544	—	2,154	2,163
	1955-56..	—	1	1	1,503	106	—	1,611	1,611
	1956-57..	—	1	1	1,178	325	—	1,505	1,505
	1957-58..	—	1	1	1,476	205	—	1,683	1,684
	1958-59..	—	—	—	780	407	—	1,187	1,191
	1959-60..	—	2	—	485	716	25	1,228	1,230
1960-61..	—	1	—	1,267	457	14	1,739	1,740	
<i>Fin- whales.</i>	1938-39..	64	3,608	6,956	7,057	1,792	—	19,477	19,477
	1952-53..	1	5	9,940	7,400	3,618	—	20,964	21,197
	1953-54..	—	9	11,411	8,001	5,254	—	24,675	24,986
	1954-55..	—	5	11,128	9,521	4,954	—	25,608	25,878
	1955-56..	—	1	12,733	11,047	1,321	—	25,102	25,289
	1956-57..	—	3	10,777	11,345	3,377	—	25,502	25,700
	1957-58..	—	6	10,746	8,805	5,510	—	25,067	25,222
	1958-59..	—	7	11,818	8,615	5,247	—	25,687	25,837
	1959-60..	2	1,892	10,721	8,153	4,579	924	26,271	26,415
1960-61..	73	2,074	10,714	7,871	5,983	584	27,299	27,374	
<i>Hump- backs.</i>	1938-39..	134	456	235	58	—	—	883	883
	1952-53..	—	2	—	938	1	—	941	954
	1953-54..	—	—	—	587	6	—	593	594
	1954-55..	—	3	2	487	—	—	492	493
	1955-56..	—	2	2	1,421	—	—	1,425	1,432
	1956-57..	—	—	—	673	—	—	673	679
	1957-58..	—	—	1	395	—	—	396	396
	1958-59..	—	—	—	2,393	—	—	2,393	2,394
	1959-60..	—	—	1,257	74	1	—	1,332	1,338
1960-61..	—	7	698	4	—	—	709	718	
<i>Sei- whales.</i>	1938-39..	—	—	—	—	1) 4	—	1) 4	1) 4
	1952-53..	—	—	1	22	92	—	115	123
	1953-54..	—	—	60	147	42	—	249	251
	1954-55..	—	—	7	95	43	—	145	146
	1955-56..	—	—	13	201	60	—	274	276
	1956-57..	—	—	83	428	197	—	708	712
	1957-58..	—	—	46	681	1,648	—	2,375	2,385
	1958-59..	—	—	205	586	603	—	1,394	1,402
	1959-60..	—	22	556	1,532	1,010	99	3,219	3,234
1960-61..	—	4	602	1,901	1,583	190	4,280	4,310	
<i>Sperm- whales.</i>	1938-39..	315	946	535	498	168	—	2,462	2,468
	1952-53..	62	1,431	211	155	313	—	2,172	2,185
	1953-54..	141	1,865	282	195	203	—	2,686	2,700
	1954-55..	424	3,472	1,060	333	373	—	5,662	5,708
	1955-56..	665	4,179	1,064	578	359	—	6,845	6,881
	1956-57..	373	2,749	622	376	215	—	4,335	4,345
	1957-58..	1,259	3,662	634	529	212	—	6,296	6,310
	1958-59..	731	3,470	605	426	196	—	5,428	5,437
	1959-60..	357	2,548	383	466	278	96	4,128	4,138
1960-61..	1,013	2,018	431	448	536	208	4,654	4,666	

1) 1 right-whale included.

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

Species of whales. Seasons.	Nov.	Dec.	Jan.	Feb.	March.	April.	Total.	The Whaling Statistics' total figures.	
<i>Total animals</i>	1938-39	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
	1952-53	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
	.....	.	.	.	.	.	.	.	
	.....	.	.	.	.	.	.	.	
<i>Blue-whales</i>	1938-39	62.4	50.6	38.8	23.7	23.6	—	37.8	37.8
	1952-53	—	0.4	17.5	12.8	9.9	—	13.7	13.7
	1953-54	1.6	0.1	4.6	13.3	11.8	—	8.7	8.6
	1954-55	—	—	5.0	8.5	9.2	—	6.3	6.3
	1955-56	—	—	—	10.2	5.7	—	4.6	4.5
	1956-57	—	—	—	8.4	7.9	—	4.6	4.6
	1957-58	—	—	—	12.4	2.7	—	4.7	4.7
	1958-59	—	—	—	6.1	6.3	—	3.3	3.3
	1959-60	—	—	—	4.5	10.9	2.2	3.4	3.4
1960-61	—	—	—	11.0	5.3	1.4	4.5	4.5	
<i>Fin-whales</i>	1938-39	4.7	35.6	55.1	70.7	69.8	—	53.1	53.1
	1952-53	—	0.4	80.8	75.8	81.0	—	74.8	74.8
	1953-54	1.5	0.5	92.6	77.7	84.2	—	79.9	80.0
	1954-55	—	0.1	86.6	83.5	83.8	—	75.2	75.3
	1955-56	—	—	92.2	74.9	71.6	—	71.2	71.3
	1956-57	—	0.1	93.9	81.0	82.1	—	77.9	78.0
	1957-58	—	0.2	94.0	74.1	72.7	—	70.0	70.1
	1958-59	—	0.2	93.6	67.3	81.3	—	71.2	71.2
	1959-60	0.6	42.4	83.0	76.1	69.5	80.8	72.6	72.6
1960-61	6.7	50.5	86.1	68.5	69.9	58.6	70.6	70.5	
<i>Hump-backs</i>	1938-39	9.8	4.5	1.9	0.6	—	—	2.4	2.4
	1952-53	—	0.1	—	9.6	2.1	—	3.4	3.4
	1953-54	—	—	—	5.7	—	—	1.9	1.9
	1954-55	—	0.1	—	4.3	—	—	1.5	1.4
	1955-56	—	0.1	—	9.6	—	—	4.0	4.0
	1956-57	—	—	—	4.8	—	—	2.1	2.0
	1957-58	—	—	—	3.3	—	—	1.1	1.1
	1958-59	—	—	—	18.7	—	—	6.6	6.6
	1959-60	—	—	9.7	0.7	0.1	—	3.7	3.7
1960-61	—	0.2	5.6	0.1	—	—	1.8	1.9	
<i>Sei-whales</i>	1938-39	—	—	—	—	0.1	—	—	—
	1952-53	—	—	—	0.2	—	—	0.4	0.4
	1953-54	—	—	0.5	1.4	0.7	—	0.8	0.8
	1954-55	—	—	0.1	0.8	0.7	—	0.4	0.4
	1955-56	—	—	0.1	1.4	3.3	—	0.8	0.8
	1956-57	—	—	0.7	3.1	4.8	—	2.2	2.2
	1957-58	—	—	0.4	5.7	21.8	—	6.6	6.6
	1958-59	—	—	1.6	4.6	9.4	—	3.9	3.9
	1959-60	—	0.5	4.3	14.3	15.3	8.6	8.9	8.9
1960-61	—	0.1	4.8	16.5	18.5	19.1	11.1	11.1	
<i>Sperm-whales</i>	1938-39	23.1	9.3	4.2	5.0	6.5	—	6.7	6.7
	1952-53	96.9	99.1	1.7	1.6	7.0	—	7.7	7.7
	1953-54	100.0	99.4	2.3	1.9	3.3	—	8.7	8.7
	1954-55	100.0	99.8	8.3	2.9	6.3	—	16.6	16.6
	1955-56	100.0	99.9	7.7	3.9	19.4	—	19.4	19.4
	1956-57	100.0	99.9	5.4	2.7	5.2	—	13.2	13.2
	1957-58	100.0	99.8	5.6	4.5	2.8	—	17.6	17.5
	1958-59	100.0	99.8	4.8	3.3	3.0	—	15.0	15.0
	1959-60	99.4	57.1	3.0	4.4	4.2	8.4	11.4	11.4
1960-61	93.3	49.2	3.5	3.9	6.3	20.9	12.0	12.0	

including 1960–61 are given in table *c*, page 13. In table *d*, page 14, the *pelagic* results during the same period have been recorded separately.

As will be seen from table *d* a total of 1,740 blue-whales were killed in the pelagic whaling in 1960–61 as compared with 1,230 in the season 1959–60. An interesting point as regards these blue-whale catches is that about 1,100 of the blue-whales in 1960–61 and about 250 in 1959–60 were taken in the waters between 40° and 50° South (and between 30° and 80° East), whereas whaling operations previously have only been carried on south of 50° South. In the fields south of 50° South about 600 blue-whales were taken last season, compared with about 1,000 during the season 1959–60.

The catch of fin-whales in 1960–61 amounted to 27,374 animals, which is the largest number of fin-whales killed in the Antarctic in one single season. There were also killed 718 humpbacks in the season 1960–61, as compared with 1,338 and 2,394 during the two preceding seasons. The sei-whale catch during the season 1960–61 amounted to 4,310 animals, or about 1,100 animals more than in 1959–60. The sei-whale catch in 1960–61 was the highest ever recorded in one single season in the Antarctic pelagic whaling. The sperm-whale catch amounted to 4,666 animals, or 528 more than in the previous season.

Table *e*, page 15, 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 during the two last seasons, 1960–61 and 1959–60, amounted to 956 and 942 barrels whale-oil, respectively. During the seasons 1949/50–1958/59 the corresponding figures have varied between 1,266 and 1,690.

The average daily production of whale-oil per catcher in 1960–61 was 80 barrels or a decrease of 7 barrels compared with 1959–60, and this is the lowest result recorded since the season 1926–27. During the seasons 1946/47–1958/59 the average daily production per catcher varied from 98 to 126 barrels.

Table *f*, page 17, shows the relation between the various species of whales killed in pelagic operations in the Antarctic from 1928–29. The blue-whale catch in 1960–61 represented 4.5 per cent of the total number of whales killed against 3.4 and 3.3 per cent in the two preceding seasons. The fin-whale catch in 1960–61 represented 70.5 per cent compared with 72.6 and 71.2 per cent in 1959–60 and 1958–59. The number of humpbacks killed decreased last season to 1.9 per cent, from 3.7 per cent in 1959–60 and 6.6 per cent in 1958–59. On the other hand the sei-whale catch represented 11.1 per cent in 1960–61 against 8.9 and 3.9 per cent

in the two preceding seasons. The sperm-whale catch represented 12.0 per cent in 1960–61 compared with 11.4 per cent in 1959–60.

In the survey below 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 fin-whale catch were blue-whales, whereas the number of blue-whales killed

Season	Blue-whales		Fin-whales	
	Number	Per cent	Number	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	51.6	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

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 postponed ever since the early thirties. During post-war seasons the efforts of reducing the taxation of blue-whales have also contributed to this post-

Table i.—Number and average size of whales caught

No.	Species of whales. Seasons.	Area II (60° W.-0°)			Area III (0°-70° E.)			Area IV (70° E.-130° E.)		
		Number of whales caught.	Per cent.	Average size of the whales. Eng. ft.	Number of whales caught.	Per cent.	Average size of the whales. Eng. ft.	Number of whales caught.	Per cent.	Average size of the whales Eng. ft.
<b>Blue-whales.</b>										
1	1931/32-1938/39	<sup>1)</sup> 20,660	17.7	79.0	52,580	45.1	78.3	42,125	36.1	79.9
2	1939-40	3,441	61.9	78.2	734	13.2	76.8	1,386	24.9	78.7
3	1940/41-1946/47	4,562	31.0	78.2	6,099	41.5	78.3	3,346	22.8	78.1
4	1947-48	1,536	22.5	76.7	1,890	27.6	78.6	1,952	28.5	79.4
5	1948-49	2,022	27.4	78.6	2,981	40.4	79.3	1,325	18.0	79.1
6	1949-50	1,064	17.3	78.4	1,512	24.7	78.5	925	15.1	78.9
7	1950-51	1,514	21.9	77.3	1,427	20.6	77.8	1,076	15.5	77.7
8	1951-52	447	8.8	78.2	1,836	36.0	79.2	1,199	23.5	77.7
9	1952-53	727	18.9	78.9	1,454	37.8	77.7	837	21.8	77.0
10	1953-54	542	20.3	78.1	1,569	58.8	78.2	356	13.4	77.2
11	1954-55	470	21.8	79.0	685	31.8	78.1	310	14.4	77.6
12	1955-56	439	27.3	77.1	300	18.6	78.8	322	20.0	77.7
13	1956-57	330	21.9	76.9	275	18.3	78.4	80	5.3	78.5
14	1957-58	236	14.0	77.8	620	36.9	77.4	186	11.1	76.7
15	1958-59	57	4.8	80.5	373	31.4	79.0	335	28.2	78.0
16	1959-60	58	4.7	79.2	231	18.8	77.4	403	32.8	73.3
17	1960-61	128	7.4	79.7	1,152	66.2	72.6	151	8.7	71.8
	1931/32-1960/61	38,233	20.4	78.6	75,718	40.5	78.3	56,314	30.1	79.5
<b>Fin-whales.</b>										
1	1931/32-1938/39	<sup>2)</sup> 32,147	35.3	67.7	36,961	40.6	67.5	19,913	21.9	68.3
2	1939-40	7,840	73.7	67.4	2,218	20.9	66.9	574	5.4	67.5
3	1940/41-1946/47	11,595	51.2	67.1	7,231	31.9	68.0	3,355	14.8	67.3
4	1947-48	6,136	32.5	68.1	6,483	34.4	67.8	4,654	24.7	67.9
5	1948-49	4,995	29.2	67.4	6,457	37.8	68.5	3,068	18.0	67.4
6	1949-50	7,150	40.0	67.5	5,117	28.6	67.5	2,940	16.5	66.6
7	1950-51	5,081	29.4	66.4	4,133	23.9	66.2	4,210	24.3	66.5
8	1951-52	5,977	29.4	67.9	7,122	35.1	68.1	2,141	10.5	67.3
9	1952-53	4,551	21.7	68.1	11,364	54.2	67.1	1,449	6.9	66.2
10	1953-54	7,653	31.0	67.4	11,459	46.4	67.0	2,195	8.9	67.0
11	1954-55	4,963	19.4	67.3	13,607	53.1	66.4	2,790	10.9	66.4
12	1955-56	6,619	26.4	66.2	7,088	28.2	66.8	3,208	12.8	66.5
13	1956-57	10,697	41.9	67.4	3,812	15.0	67.2	291	1.1	64.6
14	1957-58	5,211	20.8	67.3	9,197	36.7	66.7	3,579	14.3	65.6
15	1958-59	4,298	16.7	67.1	9,385	36.6	66.4	7,277	28.3	66.5
16	1959-60	4,920	18.7	66.9	9,307	35.4	66.7	6,501	24.8	66.3
17	1960-61	5,223	19.1	66.6	13,269	48.6	67.5	2,086	7.7	65.7
	1931/32-1960/61	135,056	30.6	67.4	164,210	37.1	67.2	70,231	15.9	67.1
<b>Humpbacks.</b>										
1	1931/32-1940/41	<sup>3)</sup> 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	56.3	41.7	1	6.2	45.0
3	1949-50	172	8.2	41.0	251	11.9	41.7	779	37.0	40.4
4	1950-51	2	0.1	38.5	20	1.2	38.8	1,112	68.5	40.5
5	1951-52	33	2.2	42.9	189	12.3	42.0	1,127	73.6	39.9
6	1952-53	14	1.5	44.6	218	23.2	41.2	191	20.3	39.1
7	1953-54	13	2.2	41.2	172	29.0	41.0	258	43.5	39.3
8	1954-55	2	0.4	42.5	142	28.9	41.4	-	-	-
9	1955-56	-	-	-	64	4.5	41.1	824	57.8	39.8
10	1956-57	-	-	-	8	1.2	40.8	-	-	-
11	1957-58	-	-	-	116	29.3	41.0	-	-	-
12	1958-59	-	-	-	95	4.0	42.4	1,796	75.0	39.6
13	1959-60	-	-	-	156	11.7	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
	1931/32-1960/61	1,533	5.5	41.3	7,814	27.9	40.9	12,401	44.2	40.3

<sup>1)</sup> Incl. 608 blue-whales, length not stated. <sup>2)</sup> Incl. 193 fin-whales, length not stated. <sup>3)</sup> Incl. 2 humpbacks,

## in the different areas of Antarctic. Pelagic whaling.

Area V (130° E.-170° W.)			Area VI (170° W.-120° W.)			Area I (120° W.-60° W.)			All areas			The Whaling Statistics' total figures for whales caught.	No.
Number of whales caught.	Per cent.	Average size of the whales.	Number of whales caught.	Per cent.	Average size of the whales	Number of whales caught.	Per cent.	Average size of the whales	Number of whales caught.	Per cent.	Average size of the whales.		
		Eng. ft.			Eng. ft.			Eng. ft.			Eng. ft.		
1,326	1.1	79.9	1	—	82.0	10	—	72.9	<sup>1)</sup> 116,702	100	79.0	116,799	1
—	—	—	—	—	—	—	—	—	5,561	100	78.2	11,392	2
693	4.7	77.6	—	—	—	—	—	—	14,700	100	78.2	18,552	3
1,467	21.4	78.7	—	—	—	—	—	—	6,845	100	78.4	6,862	4
1,013	13.8	79.1	30	0.4	80.9	—	—	—	7,371	100	79.1	7,399	5
1,494	24.4	79.8	1,137	18.5	79.4	—	—	—	6,132	100	79.0	6,168	6
2,211	31.9	79.3	655	9.5	78.8	45	0.6	77.7	6,928	100	78.2	6,966	7
1,462	28.6	76.9	157	3.1	77.5	—	—	—	5,101	100	78.0	5,124	8
512	13.3	76.4	317	8.2	76.9	—	—	—	3,847	100	77.5	3,866	9
83	3.1	78.2	117	4.4	76.7	—	—	—	2,667	100	78.0	2,684	10
561	26.0	76.4	128	6.0	77.0	—	—	—	2,154	100	77.8	2,163	11
15	0.9	79.1	281	17.4	76.2	254	15.8	76.3	1,611	100	77.3	1,611	12
—	—	—	617	41.0	76.3	203	13.5	76.9	1,505	100	77.0	1,505	13
76	4.5	76.9	440	26.1	76.9	125	7.4	76.1	1,682	100	77.1	1,684	14
176	14.9	78.5	246	20.7	76.9	—	—	—	1,187	100	78.3	1,191	15
391	31.8	76.6	127	10.4	76.9	18	1.5	78.7	1,228	100	75.9	1,230	16
90	5.2	78.6	213	12.2	78.0	5	0.3	77.0	1,739	100	74.0	1,740	17
11,570	6.2	78.5	4,465	2.4	77.8	660	0.4	76.5	186,960	100	78.7	196,936	
1,993	2.2	68.1	—	—	—	77	—	64.7	<sup>2)</sup> 91,091	100	67.8	91,126	1
—	—	—	—	—	—	—	—	—	10,632	100	67.3	17,757	2
478	2.1	65.9	—	—	—	—	—	—	22,659	100	67.4	28,895	3
1,591	8.4	67.9	—	—	—	—	—	—	18,864	100	67.9	18,999	4
2,489	14.6	68.2	72	0.4	68.4	—	—	—	17,081	100	67.9	17,201	5
1,664	9.3	67.6	1,005	5.6	69.0	—	—	—	17,876	100	67.5	18,061	6
2,198	12.7	67.4	1,212	7.0	68.2	462	2.7	68.5	17,296	100	66.6	17,474	7
2,768	13.6	67.9	2,304	11.4	67.6	—	—	—	20,312	100	67.9	20,520	8
1,709	8.2	66.8	1,891	9.0	67.7	—	—	—	20,964	100	67.3	21,197	9
654	2.7	66.9	2,616	10.6	66.8	98	0.4	66.6	24,675	100	67.1	24,986	10
3,021	11.8	66.0	1,227	4.8	66.4	—	—	—	25,608	100	66.5	25,878	11
1,494	5.9	66.0	2,585	10.3	66.2	4,108	16.4	67.1	25,102	100	66.5	25,289	12
23	0.1	65.0	5,064	19.9	65.9	5,615	22.0	66.8	25,502	100	66.9	25,700	13
1,130	4.5	64.4	4,107	16.4	65.1	1,843	7.3	66.1	25,067	100	66.2	25,222	14
2,625	10.2	65.6	2,102	8.2	64.6	—	—	—	25,687	100	66.3	25,837	15
4,730	18.0	66.8	401	1.5	65.1	412	1.6	64.5	26,271	100	66.6	26,415	16
3,174	11.6	66.9	3,174	11.6	64.9	373	1.4	65.2	27,299	100	66.8	27,374	17
31,741	7.2	66.9	27,760	6.3	66.2	12,988	2.9	66.7	441,986	100	67.1	457,931	
28	0.2	40.3	—	—	—	—	—	—	<sup>3)</sup> 13,816	100	40.7	16,223	1
—	—	—	—	—	—	—	—	—	16	100	42.8	16	2
903	42.9	40.5	—	—	—	—	—	—	2,105	100	40.6	2,117	3
162	10.0	42.0	66	4.1	41.2	262	16.1	41.5	1,624	100	40.8	1,630	4
146	9.5	41.6	37	2.4	41.7	—	—	—	1,532	100	40.4	1,546	5
505	53.6	41.3	13	1.4	45.3	—	—	—	941	100	40.9	954	6
14	2.4	42.7	136	22.9	41.2	—	—	—	593	100	40.3	594	7
171	34.8	39.8	177	35.9	41.9	—	—	—	492	100	41.1	493	8
194	13.6	39.4	329	23.1	40.3	14	1.0	43.3	1,425	100	40.0	1,432	9
—	—	—	10	1.5	42.3	655	97.3	41.4	673	100	41.4	679	10
23	5.8	41.0	167	42.2	41.8	90	22.7	41.9	396	100	41.5	396	11
502	21.0	40.7	—	—	—	—	—	—	2,393	100	40.0	2,394	12
931	69.9	40.8	—	—	—	179	13.4	41.8	1,332	100	40.9	1,338	13
293	41.3	40.9	210	29.6	41.7	82	11.6	42.5	709	100	41.4	718	14
3,872	13.8	40.7	1,145	4.1	41.3	1,282	4.5	41.6	28,047	100	40.7	<sup>4)</sup> 30,532	

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



Table j.—Number of whales killed during the seasons 1931/32—1960/61.

— 1 —

Areas	Blue-whales		Fin-whales		Humpbacks		Sperm-whales		Total	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
II.....	38,233	20.4	135,056	30.6	1,533	5.5	14,151	20.4	188,973	26.0
III.....	75,718	40.5	164,210	37.1	7,814	27.9	25,776	37.1	273,518	37.7
IV.....	56,314	30.1	70,231	15.9	12,401	44.2	15,844	22.8	154,790	21.3
V.....	11,570	6.2	31,741	7.2	3,872	13.8	9,723	14.0	56,906	7.8
VI.....	4,465	2.4	27,760	6.3	1,145	4.1	2,125	3.1	35,495	4.9
I.....	660	0.4	12,988	2.9	1,282	4.5	1,791	2.6	16,721	2.3
Total.....	186,960	100.0	441,986	100.0	28,047	100.0	69,410	100.0	726,403	100.0

— 2 —

Species of whales	Area II		Area III		Area IV		Area V		Area VI		Area I		Total	
	No. of whales	Per cent	No. of whales	Per cent	No. of whales	Per cent	No. of whales	Per cent	No. of whales	Per cent	No. of whales	Per cent	No. of whales	Per cent
Blue.....	38,233	20.2	75,718	27.7	56,314	36.4	11,570	20.3	4,465	12.6	660	3.9	186,960	25.7
Fin.....	135,056	71.5	164,210	60.0	70,231	45.4	31,741	55.8	27,760	78.2	12,988	77.7	441,986	60.8
Humpback	1,533	0.8	7,814	2.9	12,401	8.0	3,872	6.8	1,145	3.2	1,282	7.7	28,047	3.9
Sperm....	14,151	7.5	25,776	9.4	15,844	10.2	9,723	17.1	2,125	6.0	1,791	10.7	69,410	9.6
Total....	188,973	100.0	273,518	100.0	154,790	100.0	56,906	100.0	35,495	100.0	16,721	100.0	726,403	100.0

ponement of the whaling period. In the six last seasons, 1955/56–1960/61, the opening day of the blue-whale season was February 1st, while the blue-whale catch in 1932–33 commenced on October 20th.

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 a great extent influenced by the above mentioned postponement and curtailment of the whaling period, viz. all the figures for the months of December and March as well as the January figures for the seasons from and including 1953–54. 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 below 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	.... 61.9	1949–50	.... 25.7
1932–33	.... 50.3	1950–51	.... 28.7
1933–34	.... 46.6	1951–52	.... 25.9
1934–35	.... 38.4	1952–53	.... 14.0
1935–36	.... 50.8	1953–54	.... 14.0
1936–37	.... 29.9	1954–55	.... 9.5
1937–38	.... 16.5	1955–56	.... 11.5
1938–39	.... 24.5	1956–57	.... 9.4
1945–46	.... 31.9	1957–58	.... 13.5
1946–47	.... 31.9	1958–59	.... 7.8
1947–48	.... 22.9	1959–60	.... 5.7
1948–49	.... 25.2	1960–61	.... 13.5

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, but in 1960–61 it increased to 13.5.

*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	I	between	60° west	and	120° west
"	II	"	0°	"	60° "
"	III	"	0°	"	70° east
"	IV	"	70° east	"	130° "
"	V	"	130° "	"	170° west
"	VI	"	170° west	"	120° "

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 1950/51—1960/61.**

Whaling grounds and species of whales.	1938-39	1950-51	1951-52	1952-53	1953-54	1954-55	1955-56	1956-57	1957-58	1958-59	1959-60	1960-61
<b>Pelagic whaling.</b>	Engl. feet.	Engl. feet.	Engl. feet.	Engl. feet.	Engl. feet.	Engl. feet.	Engl. feet.	Engl. feet.	Engl. feet.	Engl. feet.	Engl. feet.	Engl. feet.
<i>Blue-whales.</i>												
Males .....	76.6	77.3	76.4	75.8	76.0	75.7	75.6	75.8	75.4	76.0	74.5	72.8
Females .....	79.5	79.4	79.5	79.1	79.6	79.5	78.9	78.4	79.0	80.2	77.0	75.2
Total animals.....	78.0	78.2	78.0	77.5	78.0	77.8	77.3	77.0	77.1	78.3	75.9	74.0
<i>Fin-whales.</i>												
Males .....	65.7	65.2	66.4	65.7	65.6	65.1	65.1	65.3	64.7	64.8	65.0	65.1
Females .....	68.9	68.2	69.4	68.8	68.7	68.0	68.1	68.6	67.7	67.8	68.1	68.4
Total animals.....	67.2	66.6	67.9	67.3	67.1	66.5	66.5	66.9	66.2	66.3	66.6	66.8
<i>Humpbacks.</i>												
Males .....	37.7	39.7	39.3	39.5	39.6	39.9	39.0	40.7	40.8	39.2	39.8	40.6
Females .....	40.5	41.6	41.4	42.0	41.1	41.8	40.7	42.1	42.1	40.7	41.8	42.2
Total animals.....	39.6	40.8	40.4	40.9	40.3	41.1	40.0	41.4	41.5	40.0	40.9	41.4
<i>Sei-whales.</i>												
Males .....	49.3	48.1	49.9	49.6	47.0	44.9	48.5	48.7	48.3	48.8	48.7	48.6
Females .....	56.0	51.2	51.9	52.3	50.8	47.9	51.3	51.3	51.3	51.4	51.3	51.4
Total animals.....	51.0	49.7	51.0	51.6	49.2	46.5	50.4	50.4	50.3	50.8	50.5	50.2
<i>Sperm-whales.</i>												
Males .....	52.8	50.2	49.9	49.9	49.2	48.9	48.4	48.7	47.5	47.2	47.3	46.8
Females .....	—	—	—	—	—	—	—	—	36.5	—	39.0	—
Total animals.....	52.8	50.2	49.9	49.9	49.2	48.9	48.4	48.7	47.5	47.2	47.3	46.8
<b>South Georgia.</b>												
<i>Blue-whales, total</i> ...	75.8	76.9	72.0	74.0	73.3	73.0	81.3	71.7	74.5	64.0	73.0	72.8
<i>Fin-whales, total</i> ...	65.4	66.0	66.0	65.4	64.0	64.8	65.0	63.8	66.1	65.9	66.4	64.0
<i>Humpbacks, total</i> ...	—	40.1	39.8	40.1	39.4	40.0	—	—	—	—	—	—
<i>Sei-whales, total</i> ...	50.9	50.3	50.5	50.1	49.3	50.0	50.0	49.5	50.1	49.8	49.5	49.3
<i>Sperm-whales, total</i> ..	50.3	46.9	48.1	46.7	47.0	48.7	46.8	45.7	47.1	46.5	47.6	46.9

Areas	Catch in blue-whale units 1958-59		Catch in blue-whale units 1959-60		Catch in blue-whale units 1960-61	
	Number	Per cent	Number	Per cent	Number	Per cent
Total .....	15,235	100.0	15,421	100.0	16,375	100.0
Of which in:						
Area II.....	2,215	14.5	2,585	16.8	2,929	17.9
"  III.....	5,117	33.6	4,983	32.3	7,885	48.1
"  IV.....	4,739	31.1	3,765	24.4	1,211	7.4
"  V.....	1,776	11.7	3,401	22.0	1,887	11.5
"  VI.....	1,388	9.1	365	2.4	2,222	13.6
"  I.....	—	—	322	2.1	241	1.5

In 1960-61 the largest catch was taken in area III, where the whaling operations resulted in 7,885 blue-whale units or about 48 per cent of the total catch. In the three preceding seasons the catch in this area has varied between 32 and 36 per cent of the total catch. In area II the catch amounted to 2,929 blue-whale units as against 2,585 units in 1959-60. In area IV there was a marked decline in last season's catch, which resulted in 1,211

**Table I.—Average size of whales killed, by species and sex 1938/39 and 1950/51—1960/61, 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	1950 -51	1951 -52	1952 -53	1953 -54	1954 -55	1955 -56	1956 -57	1957 -58	1958 -59	1959 -60	1960 -61
<i>Blue-whales.</i>	Engl. feet.	Engl. feet.	Engl. feet.	Engl. feet.	Engl. feet.	Engl. feet.	Engl. feet.	Engl. feet.	Engl. feet.	Engl. feet.	Engl. feet.	Engl. feet.
Males . . . . .	77.3	77.8	77.1	76.3	76.4	76.1	76.1	76.3	75.8	76.3	74.9	73.1
Females . . . . .	80.3	80.0	80.1	79.5	80.1	80.0	79.4	79.0	79.4	80.6	77.5	75.5
Total animals.	78.8	78.8	78.6	78.0	78.5	78.2	77.9	77.5	77.6	78.7	76.3	74.3
<i>Fin-whales.</i>												
Males . . . . .	66.5	66.3	66.7	66.0	65.9	65.9	65.2	66.2	65.8	65.9	66.1	66.2
Females . . . . .	69.8	69.3	69.7	69.1	69.0	68.9	68.3	69.6	69.0	69.0	69.3	69.5
Total animals.	68.1	67.8	68.1	67.6	67.4	67.4	66.7	67.9	67.5	67.4	67.8	67.9
<i>Humpbacks.</i>												
Males . . . . .	38.1	40.1	39.6	39.7	39.7	40.0	39.1	40.8	40.9	39.2	39.9	40.6
Females . . . . .	40.8	41.8	41.7	42.2	41.3	41.9	40.8	42.3	42.3	40.9	41.9	42.3
Total animals.	40.0	41.1	40.7	41.1	40.5	41.1	40.1	41.6	41.6	40.1	41.1	41.4

units as compared with 2,022, 4,739, and 3,765 units in the seasons 1957/58–1959/60. There was also a decline in area V, the catch amounting to 1,887 units in 1960–61 against 3,401 units in 1959–60. On the other hand, the catch results in area VI increased from 365 units in 1959–60 to 2,222 units in the last season.

In the previously closed sector (between 70° West and 160° West) the whaling operations resulted in a total of 2,009 units. During the 6 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 . . . . .	3,681.2	24.9
1956–57 . . . . .	5,804.2	39.7
1957–58 . . . . .	3,687.2	25.0
1958–59 . . . . .	1,188.0	7.8
1959–60 . . . . .	401.8	2.6
1960–61 . . . . .	2,008.9	12.3
Total . . . . .	16,771.3	18.4

Table *i*, page 22 records the number and average size of whales killed in the above mentioned areas for a series of years. In the last season, 1960–61, the largest number of blue-whales was killed in area III, viz. 1,152 animals or 66.2 per cent of the total blue-whale catch. Next comes area VI with a total catch of 213 blue-whales or 12.2 per cent.

The largest fin-whale catch in 1960–61 took place in area III with a total catch of 13,269 animals or 48.6 per cent of the total fin-whale catch.

The largest number of humpbacks was killed in area V with a total of 293 animals or 41.3 per cent. In area VI 210 humpbacks were killed or 29.6 per cent.

The total number and percentage proportion of sei- and sperm-whales killed in the season 1960-61 was as follows:

Area	Sei-whales caught in 1960-61		Sperm-whales caught in 1960-61	
	Number	Per cent	Number	Per cent
II.....	1,146	26.8	1,038	22.3
III.....	336	7.8	1,478	31.7
IV.....	103	2.4	861	18.5
V.....	563	13.2	1,070	23.0
VI.....	2,030	47.4	41	0.9
I.....	102	2.4	166	3.6
Total.....	4,280	100.0	4,654	100.0

Table *j*, page 24, gives a summary of the whaling results in the various areas for the period 1931/32-1960/61. Of a total catch of 186,960 blue-whales during this period, 75,718 or 40.5 per cent have been killed in area III. Of a total catch of 441,986 fin-whales, 164,210 or 37.1 per cent have been killed in area III, while 30.6 per cent were killed in area II. A total of 28,047 humpbacks have been killed in the same period, of which 12,401 or 44.2 per cent have been killed in area IV. In the survey below the percentage proportion of the catch specified for each area in the entire period is compared with the corresponding figures for the last two seasons:—

Area	Blue-, fin- and humpback-whales killed					
	Seasons 1931/32-1930/61		Season 1959/60		Season 1960/61	
II.....	26.6	per cent	17.3	per cent	18.0	per cent
" III.....	37.7	" "	33.6	" "	48.9	" "
" IV.....	21.1	" "	24.2	" "	7.5	" "
" V.....	7.2	" "	21.0	" "	12.0	" "
" VI.....	5.1	" "	1.8	" "	12.1	" "
" I.....	2.3	" "	2.1	" "	1.5	" "
Total.....	100.0	per cent	100.0	per cent	100.0	per cent

*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 1950/51-1960/61. There was a decline in the average size of blue-whales

Table m.—Antarctic, pelagic whaling. Catch of immature and mature whales 1938/39 and 1952/53—1960/61.

	1938—39.		1952—53.		1953—54.		1954—55.		1955—56.		1956—57.		1957—58.		1958—59.		1959—60.		1960—61.	
	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.	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.
<b>Blue-whales.</b>																				
Immature																				
males . . . .	1,940	27.8	677	36.8	409	33.5	374	37.4	289	37.4	268	33.7	316	36.9	175	33.0	267	46.5	618	71.3
females . . .	2,343	34.1	827	41.2	564	39.0	439	38.0	352	42.0	312	44.0	332	40.2	219	33.3	351	56.7	629	72.1
animals . . .	4,283	30.9	1,504	39.1	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
Mature																				
males . . . .	5,034	72.2	1,165	63.2	811	66.5	626	62.6	484	62.6	528	66.3	541	63.1	355	67.0	307	53.5	249	28.7
females . . .	4,522	65.9	1,178	58.8	883	61.0	715	62.0	486	58.0	397	56.0	494	59.8	438	66.7	303	43.3	243	27.9
animals . . .	9,556	69.1	2,343	60.9	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
<b>Fin-whales.</b>																				
Immature																				
males . . . .	2,037	20.2	2,151	20.6	2,593	20.4	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
females . . .	2,039	22.4	2,486	23.6	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
animals . . .	4,136	21.2	4,637	22.1	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
Mature																				
males . . . .	8,297	79.8	8,296	79.4	10,106	79.6	9,358	73.7	9,688	75.3	9,835	76.1	8,484	70.0	8,976	71.1	9,290	73.0	9,494	72.6
females . . .	7,044	77.6	8,031	76.4	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
animals . . .	15,341	78.8	16,327	77.9	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
<b>Humpbacks.</b>																				
Immature																				
males . . . .	182	69.2	207	50.7	159	52.1	87	43.5	341	56.9	85	26.1	58	30.9	658	57.2	271	47.7	140	37.8
females . . .	310	50.0	183	34.3	132	45.8	107	36.6	392	47.5	102	29.4	63	30.3	607	48.8	287	37.6	109	32.2
animals . . .	492	55.7	390	41.4	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
Mature																				
males . . . .	81	30.8	201	49.3	146	47.9	113	56.5	258	43.1	241	73.9	130	69.1	492	42.8	297	52.3	230	62.2
females . . .	310	50.0	350	65.7	156	54.2	185	63.4	434	52.5	245	70.6	145	69.7	636	51.2	477	62.4	230	67.8
animals . . .	391	44.3	551	58.6	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

Table n.—Antarctic, pelagic whaling results for the various countries 1937/38, 1938/39 and 1950/51—1960/61.

Seasons	All countries			Norway			United Kingdom			Union of South Africa			Japan		
	Number of whales killed	Oil production	Catchers employed	Number of whales killed	Oil production	Catchers employed	Number of whales killed	Oil production	Catchers employed	Number of whales killed	Oil production	Catchers employed	Number of whales killed	Oil production	Catchers employed
1937-38.....	44,152	Barrels <sup>1</sup> 3,250,064	244	<sup>2)</sup> 14,960	<sup>3)</sup> 1,157,993	83	12,461	Barrels 921,192	64	2,825	Barrels 193,673	16	5,582	Barrels 388,683	30
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	69
1959-60.....	36,559	2,050,892	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

Seasons	Germany			Panama			United States of America			Netherlands			U.S.S.R.		
	Number of whales killed	Oil production	Catchers employed	Number of whales killed	Oil production	Catchers employed	Number of whales killed	Oil production	Catchers employed	Number of whales killed	Oil production	Catchers employed	Number of whales killed	Oil production	Catchers employed
1937-38.....	5,237	Barrels 356,858	33	1,527	Barrels 117,650	10	1,560	Barrels 114,015	8	-	Barrels -	-	-	Barrels -	-
1938-39.....	5,066	374,149	41	907	68,853	8	1,106	92,964	8	-	-	-	-	-	-
1950-51.....	-	-	-	1,497	126,522	12	-	-	-	1,660	103,560	12	1,691	109,894	15
1951-52.....	-	-	-	1,408	97,073	16	-	-	-	1,650	110,300	12	2,468	147,647	15
1952-53.....	-	-	-	2,365	164,150	16	-	-	-	1,575	103,710	12	2,726	155,269	15
1953-54.....	-	-	-	-	-	-	-	-	-	1,711	97,596	12	3,086	169,117	15
1954-55.....	-	-	-	2,512	147,880	16	-	-	-	848	64,739	12	3,290	172,088	15
1955-56.....	-	-	-	2,730	160,960	15	-	-	-	1,665	103,465	18	2,773	153,736	15
1956-57.....	-	-	-	-	-	-	-	-	-	1,409	92,489	14	2,600	137,706	18
1957-58.....	-	-	-	-	-	-	-	-	-	1,867	116,497	14	4,037	224,578	24
1958-59.....	-	-	-	-	-	-	-	-	-	2,226	126,488	12	3,687	220,914	24
1959-60.....	-	-	-	-	-	-	-	-	-	2,081	143,050	13	7,031	378,300	37
1960-61.....	-	-	-	-	-	-	-	-	-	2,212	139,774	14	7,182	376,263	52

<sup>1)</sup> Barrel = 170 kg. (Barrel = abt. 1/5 long ton. 1 long ton = 1,016 kg.) <sup>2)</sup> Including the catch of two Norwegian expeditions hired by Germany in 1937-38 2,158 whales and in 1938-39 1,658 whales. <sup>3)</sup> Incl. the production of two Norwegian expeditions hired by Germany—in 1937-38 180,750 barrels and in 1938-39 118,380 barrels.

Table o.—South Georgia.

Years.	Species of whales caught.							Oil production.	Expeditions.			Number of whales per boat.
	Blue.	Fin.	Hump-back.	Sei.	Sperm.	Others.	Total of whales.		Shore stations.	Float-ing factories.	Catch-ers.	
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	3,682	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	2	—	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	2	—	12	147
1937-38	97	1,552	40	155	43	—	1,887	90,266	2	—	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	1	—	7	137
1944-45	128	987	60	76	45	—	1,296	75,540	1	—	7	185
1945-46	80	1,456	238	82	57	—	1,913	78,877	3	—	16	120
1946-47	327	1,670	28	391	133	2) 1	2,550	145,318	3	—	18	142
1947-48	46	2,142	24	609	128	—	2,949	163,398	3	—	21	140
1948-49	226	1,922	18	562	213	—	2,941	172,194	3	—	21	140
1949-50	14	1,999	26	1,183	157	—	3,379	147,121	3	—	21	161
1950-51	82	1,982	8	519	226	—	2,817	151,192	3	—	21	134
1951-52	6	2,007	10	498	141	—	2,662	144,375	3	—	21	127
1952-53	4	1,670	9	498	147	—	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	2,746	2	423	82	—	3,266	180,766	3	—	21	156
1955-56	3	2,669	—	284	93	—	3,049	172,363	3	—	21	145
1956-57	7	2,057	—	980	84	—	3,128	148,068	3	—	21	149
1957-58	6	2,251	—	924	225	—	3,406	171,432	2	—	2) 20	150
1958-59	1	1,291	—	1,019	215	—	2,526	102,418	3	—	21	120
1959-60	9	1,160	—	1,075	89	—	2,333	97,546	3	—	21	111
1960-61	4	1,387	—	792	134	—	2,317	109,727	3	—	2) 16	138

1) 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.

Species of whales. Seasons.	Oct.	Nov.	Dec.	Jan.	Feb.	March.	April.	Total.	The Whal- ing Statis- tics' total figures.	
<i>Total animals.</i>	1938-39.....	51	240	453	332	218	343	38	1,675	1,675
	1952-53.....	148	441	301	539	346	425	70	2,270	2,328
	1953-54.....	268	508	604	880	762	453	115	3,590	3,654
	1954-55.....	607	716	506	443	399	510	—	3,181	3,266
	1955-56.....	371	391	266	757	572	644	—	3,001	3,049
	1956-57.....	314	404	460	562	627	701	—	3,068	3,128
	1957-58.....	234	488	869	465	665	636	—	3,357	3,406
	1958-59.....	342	288	578	278	516	702	—	2,504	2,526
	1959-60.....	345	214	253	481	654	353	—	2,300	2,333
1960-61.....	298	160	353	456	546	460	—	2,273	2,317	
<i>Blue- whales.</i>	1938-39.....	—	7	131	35	24	32	3	232	232
	1952-53.....	—	—	1	—	—	—	3	4	4
	1953-54.....	1	1	6	4	—	1	—	3	13
	1954-55.....	1	—	7	2	2	1	—	13	13
	1955-56.....	1	—	1	—	—	1	—	13	3
	1956-57.....	2	1	1	1	1	1	—	7	7
	1957-58.....	—	1	2	—	2	1	—	6	6
	1958-59.....	—	—	—	—	1	—	—	1	1
	1959-60.....	5	1	1	—	—	2	—	9	9
1960-61.....	—	1	1	2	—	—	—	4	4	
<i>Fin- whales.</i>	1938-39.....	51	232	318	292	189	211	14	1,307	1,307
	1952-53.....	144	422	293	387	194	150	25	1,615	1,670
	1953-54.....	266	505	577	677	443	143	6	2,617	2,673
	1954-55.....	599	709	476	403	240	242	—	2,669	2,746
	1955-56.....	366	386	262	695	425	487	—	2,621	2,669
	1956-57.....	312	387	446	438	336	94	—	2,013	2,057
	1957-58.....	203	486	847	418	200	61	—	2,215	2,251
	1958-59.....	342	283	329	177	100	45	—	1,276	1,291
	1959-60.....	338	211	243	261	83	7	—	1,143	1,160
1960-61.....	297	124	270	154	240	273	—	1,358	1,387	
<i>Hump- backs.</i>	1938-39.....	—	—	—	—	—	—	—	—	—
	1952-53.....	1	4	1	—	—	3	—	9	9
	1953-54.....	—	—	2	6	1	2	—	11	11
	1954-55.....	—	2	—	—	—	—	—	2	2
	1955-56— 1960-61	—	—	—	—	—	—	—	—	—
<i>Sei- whales.</i>	1938-39.....	—	—	—	—	—	13	6	19	19
	1952-53.....	—	—	—	137	147	185	26	495	498
	1953-54.....	—	—	1	177	294	213	86	771	778
	1954-55.....	1	—	1	29	153	232	—	416	423
	1955-56.....	—	—	—	31	132	121	—	284	284
	1956-57.....	—	—	1	103	271	589	—	964	980
	1957-58.....	—	—	—	30	388	494	—	912	924
	1958-59.....	—	—	—	63	340	609	—	1,012	1,019
	1959-60.....	—	—	4	182	539	335	—	1,060	1,075
1960-61.....	1	—	45	284	289	158	—	777	792	
<i>Sperm whales.</i>	1938-39.....	—	1	4	5	5	87	15	117	117
	1952-53.....	3	15	6	15	5	87	16	147	147
	1953-54.....	1	2	18	16	24	94	23	178	179
	1954-55.....	6	5	22	9	4	35	—	81	82
	1955-56.....	4	5	3	31	15	35	—	93	93
	1956-57.....	—	16	12	20	19	17	—	84	84
	1957-58.....	31	1	20	17	75	80	—	224	225
	1958-59.....	—	5	49	38	75	48	—	215	215
	1959-60.....	2	2	5	38	32	9	—	88	89
1960-61.....	—	35	37	16	17	29	—	134	134	

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

Species of whales. Seasons.	Oct.	Nov.	Dec.	Jan.	Feb.	March.	April.	Total.	The Whaling Statistics' total figures.
<i>Total animals</i> {	1938-39	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	1952-53	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	.....	.	.	.	.	.	.	.	.
	.....	.	.	.	.	.	.	.	.
<i>Blue-whales</i> {	1938-39	-	2.9	28.9	10.5	11.0	9.3	7.9	13.9
	1952-53	-	-	0.3	-	-	-	-	0.2
	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	-	0.1
	1956-57	0.6	0.2	0.2	0.2	0.2	0.2	-	0.2
	1957-58	-	0.2	0.2	-	0.3	0.2	-	0.2
	1958-59	-	-	-	-	0.2	-	-	-
	1959-60	1.4	0.5	0.4	-	-	0.6	-	0.4
	1960-61	-	0.6	0.3	0.4	-	-	-	0.2
<i>Fin-whales</i> {	1938-39	100.0	93.7	70.2	83.0	86.7	61.5	33.8	78.0
	1952-53	97.3	95.7	97.4	71.8	56.1	35.3	35.7	71.1
	1953-54	99.2	99.4	95.5	76.9	58.1	31.6	5.2	72.9
	1954-55	98.7	99.0	94.1	91.0	60.2	47.5	-	83.9
	1955-56	98.6	98.7	98.5	91.8	74.3	75.6	-	87.3
	1956-57	99.4	95.8	97.0	77.9	53.6	13.4	-	65.6
	1957-58	86.8	99.6	97.5	89.9	30.1	9.6	-	66.0
	1958-59	100.0	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	23.8	44.0	59.4	-	59.7
<i>Hump-backs</i> {	1938-39	-	-	-	-	-	-	-	-
	1952-53	0.7	0.9	0.3	-	-	0.7	-	0.4
	1953-54	-	-	0.3	0.7	0.1	0.4	-	0.3
	1954-55	-	0.3	-	-	-	-	-	0.1
	1955-56	-	-	-	-	-	-	-	-
	1956-57	-	-	-	-	-	-	-	-
	1957-58	-	-	-	-	-	-	-	-
	1958-59	-	-	-	-	-	-	-	-
	1959-60	-	-	-	-	-	-	-	-
	1960-61	-	-	-	-	-	-	-	-
<i>Sei-whales</i> {	1938-39	-	-	-	-	-	3.8	15.8	1.1
	1952-53	-	-	-	25.4	42.5	43.5	37.1	21.8
	1953-54	-	-	0.2	20.1	38.6	47.0	74.8	21.5
	1954-55	0.1	-	0.2	6.5	38.3	45.5	-	13.1
	1955-56	-	-	-	4.1	23.1	18.8	-	9.5
	1956-57	-	-	0.2	18.3	43.2	84.0	-	31.4
	1957-58	-	-	-	6.5	58.3	77.7	-	27.2
	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
<i>Sperm-whales</i> {	1938-39	-	0.4	0.9	1.5	2.3	25.4	39.5	7.0
	1952-53	2.0	3.4	2.0	2.8	1.4	20.5	22.9	6.5
	1953-54	0.4	0.4	3.0	1.8	3.2	20.8	20.0	4.9
	1954-55	1.0	0.7	4.3	2.0	1.0	6.8	-	2.5
	1955-56	1.1	1.3	1.1	4.1	2.6	5.4	-	3.1
	1956-57	-	4.0	2.6	3.6	3.0	2.4	-	2.8
	1957-58	13.2	0.2	2.3	3.6	11.3	12.5	-	6.6
	1958-59	-	1.7	13.0	13.6	14.5	6.8	-	8.6
	1959-60	0.6	0.9	2.0	7.9	4.9	2.5	-	3.8
	1960-61	-	21.9	10.5	3.5	3.1	6.3	-	5.9

Table r.—South Georgia. Catch of immature and mature whales 1938/39 and 1952/53—1960/61.

	1938—39.		1952—53.		1953—54.		1954—55.		1955—56.		1956—57.		1957—58.		1958—59.		1959—60.		1960—61.	
	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.	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.
<b>Blue-whales.</b>																				
Immature males	44	44.9	1	100.0	1	33.3	4	66.7	1	100.0	5	100.0	4	100.0	1	100.0	3	100.0	1	100.0
females	65	48.5	2	66.7	8	80.0	7	100.0	—	—	1	50.0	1	50.0	—	—	4	66.7	2	66.7
animals	109	47.0	3	75.0	9	69.2	11	84.6	1	33.3	6	85.7	5	83.3	1	100.0	7	77.8	3	75.0
Mature males	54	55.1	—	—	2	66.7	2	33.3	—	—	—	—	—	—	—	—	—	—	—	—
females	69	51.5	1	33.3	2	20.0	—	—	2	100.0	1	50.0	1	50.0	—	—	2	33.3	1	33.3
animals	123	53.0	1	25.0	4	30.8	2	15.4	2	66.7	1	14.3	1	16.7	—	—	2	22.2	1	25.0
<b>Fin-whales.</b>																				
Immature males	188	30.7	307	38.9	660	52.5	584	47.6	515	41.9	489	51.7	366	38.4	228	39.9	159	35.7	322	48.5
females	231	33.2	323	39.1	747	54.9	605	42.0	583	41.9	537	50.3	402	31.9	222	31.5	226	32.4	347	50.0
animals	419	32.1	630	39.0	1,407	53.8	1,189	44.5	1,098	41.9	1,026	51.0	768	34.7	450	35.3	385	33.7	669	49.3
Mature males	424	69.3	482	61.1	597	47.5	643	52.4	715	58.1	457	48.3	588	61.6	344	60.1	286	64.3	342	51.5
females	464	66.8	503	60.9	613	45.1	837	58.0	808	58.1	530	49.7	859	68.1	482	68.5	472	67.6	347	50.0
animals	888	67.9	985	61.0	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

Table s.—Antarctic whaling results for the various countries 1937/38, 1938/39 and 1948/49—1960/61.

Years.	All countries.		Norway.		United Kingdom.		Union of South Africa.		Japan.		Argentina.	
	Number of whales.	Oil production.	Number of whales.	Oil production.	Number of whales.	Oil production.	Number of whales.	Oil production.	Number of whales.	Oil production.	Number of whales.	Oil production.
		Barrels. <sup>1)</sup>		Barrels. <sup>1)</sup>		Barrels. <sup>1)</sup>		Barrels. <sup>1)</sup>		Barrels. <sup>1)</sup>		Barrels. <sup>1)</sup>
1937-38.....	46,039	3,340,330 <sup>2)</sup>	14,960 <sup>3)</sup>	1,157,993	13,286	959,692	2,825	193,673	5,582	388,683	1,062	51,766
1938-39.....	38,356	2,820,771 <sup>2)</sup>	11,521 <sup>3)</sup>	842,712	10,022	790,846	1,170	100,945	7,540	483,476	1,024	66,826
1948-49.....	31,435	2,219,621	16,196	1,108,027	7,596	595,803	2,608	160,728	1,643	119,361	919	52,518
1949-50.....	32,396	2,166,489	16,799	1,106,487	7,786	518,417	1,882	145,298	2,114	168,754	946	41,348
1950-51.....	33,997	2,303,690	16,844	1,116,284	6,227	474,330	2,541	161,911	2,741	170,596	796	40,593
1951-52.....	35,237	2,479,180	15,650	1,136,643	6,938	500,254	2,494	185,962	3,831	259,476	798	41,825
1952-53.....	30,653	2,118,097	11,240	813,979	6,964	491,012	2,460	150,455	2,645	207,335	678	32,187
1953-54.....	34,872	2,285,720	14,928	1,027,807	7,620	537,774	2,226	147,271	4,218	252,677	1,083	53,478
1954-55.....	37,654	2,242,555	14,491	869,241	7,912	471,315	1,696	99,809	5,958	366,915	947	50,568
1955-56.....	38,580	2,307,171	14,510	852,482	7,444	474,760	2,184	109,539	6,462	408,853	812	43,376
1956-57.....	36,115	2,246,922	15,043	1,004,373	6,266	381,931	1,596	86,586	8,093	492,507	1,108	51,330
1957-58.....	39,896	2,317,638	13,289	853,810	7,080	400,705	—	—	11,763	627,849	1,860	94,199
1958-59.....	38,890	2,152,659	14,071	826,037	5,425	293,660	—	—	12,558	646,130	923	39,430
1959-60.....	38,892	2,148,438	11,324	681,330	5,165	288,117	—	—	12,359	617,141	932	40,500
1960-61.....	41,289	2,232,884	12,490	743,298 <sup>4)</sup>	5,813	306,199 <sup>4)</sup>	—	—	13,592	667,350	—	—
<i>In per cent</i>	%	%	%	%	%	%	%	%	%	%	%	%
1937-38.....	100.0	100.0	32.5	34.7	28.9	28.7	6.1	5.8	12.1	11.6	2.3	1.6
1938-39.....	100.0	100.0	30.0	29.9	26.1	28.0	3.1	3.6	19.6	17.1	2.7	2.4
1948-49.....	100.0	100.0	51.5	49.9	24.2	26.9	8.3	7.2	5.2	5.4	2.9	2.4
1949-50.....	100.0	100.0	51.9	51.1	24.0	23.9	5.8	6.7	6.5	7.8	2.9	1.9
1950-51.....	100.0	100.0	49.5	48.5	18.3	20.6	7.5	7.0	8.1	7.4	2.3	1.7
1951-52.....	100.0	100.0	44.4	45.8	19.7	20.2	7.1	7.5	10.9	10.5	2.2	1.7
1952-53.....	100.0	100.0	36.7	38.4	22.8	23.2	8.0	7.1	8.6	9.8	2.2	1.5
1953-54.....	100.0	100.0	42.8	45.0	21.8	23.5	6.4	6.5	12.1	11.0	3.1	2.3
1954-55.....	100.0	100.0	38.5	38.8	21.0	21.0	4.5	4.5	15.8	16.3	2.5	2.2
1955-56.....	100.0	100.0	37.6	36.9	19.3	20.6	5.7	5.7	16.7	17.7	2.1	1.9
1956-57.....	100.0	100.0	41.6	44.7	17.4	17.0	4.4	3.9	22.4	21.9	3.1	2.3
1957-58.....	100.0	100.0	33.3	36.8	17.7	17.3	—	—	29.5	27.1	4.7	4.1
1958-59.....	100.0	100.0	36.2	38.4	13.9	13.6	—	—	32.3	30.0	2.4	1.8
1959-60.....	100.0	100.0	29.1	31.7	13.3	13.4	—	—	31.8	28.7	2.4	1.9
1960-61.....	100.0	100.0	30.2	33.3	4) 14.1	4) 13.7	—	—	32.9	29.9	—	—

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

Table s (continued).

Years.	Germany.		Panama.		United States of America.		Netherlands.		U.S.S.R.	
	Number of whales.	Oil production.	Number of whales.	Oil production.	Number of whales.	Oil production.	Number of whales.	Oil production.	Number of whales.	Oil production.
		Barrels. <sup>1)</sup>		Barrels. <sup>1)</sup>		Barrels. <sup>1)</sup>		Barrels. <sup>1)</sup>		Barrels. <sup>1)</sup>
1937-38....	5,237	356,858	1,527	117,650	1,560	114,015	-	-	-	-
1938-39....	5,066	374,149	907	68,853	1,106	92,964	-	-	-	-
1948-49....	-	-	-	-	-	-	1,366	109,849	1,197	73,335
1949-50....	-	-	-	-	-	-	1,295	82,792	1,574	103,393
1950-51....	-	-	1,497	126,522	-	-	1,660	103,560	1,691	109,894
1951-52....	-	-	1,403	97,073	-	-	1,650	110,300	2,468	147,647
1952-53....	-	-	2,365	164,150	-	-	1,575	103,710	2,726	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....	-	-	2,730	160,960	-	-	1,665	103,465	2,773	153,736
1956-57....	-	-	-	-	-	-	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
<i>In per cent</i>	%	%	%	%	%	%	%	%	%	%
1937-38....	11.4	10.7	3.3	3.5	3.4	3.4	-	-	-	-
1938-39....	13.2	13.3	2.4	2.4	2.9	3.3	-	-	-	-
1948-49....	-	-	-	-	-	-	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	-	-	-	2.3	2.9	8.7	7.7
1955-56....	-	-	7.1	6.6	-	-	4.3	4.5	7.2	6.7
1956-57....	-	-	-	7.0	-	-	3.9	4.1	7.2	6.1
1957-58....	-	-	-	-	-	-	4.7	5.0	10.1	9.7
1958-59....	-	-	-	-	-	-	5.7	5.9	9.5	10.3
1959-60....	-	-	-	-	-	-	5.3	6.7	18.1	17.6
1960-61....	-	-	-	-	-	-	5.4	6.3	17.4	16.8

<sup>1)</sup> Barrel = 170 kg. (Barrel = abt.  $\frac{1}{8}$  long ton. 1 long ton = 1,016 kg.) <sup>2)</sup> Including the catch of two Norwegian expeditions hired by Germany—in 1937-38 2,158 whales and in 1938-39 1,658 whales. <sup>3)</sup> Including the production of two Norwegian expeditions hired by Germany—in 1937-38 180,750 barrels and in 1938-39 118,380 barrels. <sup>4)</sup> 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.

Table t.--Average production of oil per blue-whale unit.<sup>1)</sup>

Years.	South Georgia.	Pelagic whaling.	Years.	South Georgia.	Pelagic whaling.
	Barrels <sup>2)</sup>	Barrels <sup>2)</sup>		Barrels	Barrels
			1942-43.....	95.2	-
			1943-44.....	120.2	142.9
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

<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. <sup>2)</sup> Barrel = 170 kg. (Barrel = abt. ¼ long ton. 1 long ton = 1,016 kg.)

killed last season, the decline being 1.9 feet compared with 1959-60 and 4.3 feet compared with 1958-59. The average size of the fin-whales killed was 66.8 feet, which is approximately the same as during the other recent seasons. The average size of the humpbacks was 41.4 feet, i.e. an increase of 1.5 feet compared with 1959-60. The average size of the sei-whales killed was 50.2 feet, or approximately the same as in the seasons from and including 1955-56. The average size of the sperm-whales showed decline. In 1938-39 the average size was 52.8 feet, in 1959-60 47.3 feet and in the last season 46.8 feet.

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) declined in 1960-61 by 2.0 feet to 74.3 feet, compared with the season 1959-60. The average size of the fin-whales killed (of 60 feet and over) was approximately the same as in the five last seasons, or 67.9 feet. The average size of the humpbacks killed (of 35 feet and over) was 0.3 feet higher than the average for the season 1959-60.

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

Areas	Average size of blue-whales			Average size of fin-whales		
	1958-59 Engl. ft.	1959-60 Engl. ft.	1960-61 Engl. ft.	1958-59 Engl. ft.	1959-60 Engl. ft.	1960-61 Engl. ft.
II.....	80.5	79.2	79.7	67.1	66.9	66.6
III.....	79.0	77.4	72.6	66.4	66.7	67.5
IV.....	78.0	73.3	71.8	66.5	66.3	65.7
V.....	78.5	76.6	78.6	65.6	66.8	66.9
VI.....	76.9	76.9	78.0	64.6	65.1	64.9
I.....	—	78.7	77.0	—	64.5	65.2
Total.....	78.3	75.9	74.0	66.3	66.6	66.8

As it will appear from the above survey the average size of the blue-whales killed in areas III and IV in 1960–61, and in area IV in 1959–60, was very low. The low average size in these areas is accounted for by the relatively great number of small blue-whales killed between 40° and 50° South. Japanese scientists suggest that the blue-whales taken in these waters possibly belong to a distinct stock of blue-whales from elsewhere in the Antarctic, and it may be called the Pigmy Blue-Whale.

#### *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	—,,—

As will be seen from table *m*, the number of immature blue-whales killed amounted to 71.7 per cent in 1960–61 as compared with 50.3 per cent in 1959–60 and 33.2 per cent in 1958–59. Of the fin-whales killed in 1960–61 27.7 per cent were immature, and of the humpbacks killed 35.1 per cent were immature.

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

Areas	Immature blue-whales			Immature fin-whales		
	1958-59 Engl. ft.	1959-60 Engl.ft.	1960-61 Engl. ft.	1958-59 Engl. ft.	1959-60 Engl. ft.	1960-61 Engl. ft.
II.....	36.8	32.8	29.7	28.1	29.0	31.7
III.....	32.4	45.5	86.4	30.5	26.6	22.3
IV.....	30.5	78.7	89.4	26.0	29.4	37.4
V.....	24.4	34.8	27.1	31.2	23.5	25.4
VI.....	43.5	29.9	25.1	43.5	33.4	38.8
I.....	—	16.7	20.0	—	49.5	37.5
Total.....	33.2	50.3	71.7	30.0	27.6	27.7

As regards the high percentage of immature blue-whales killed in areas III and IV in 1960-61 and in area IV in 1959-60, we refer to the previous comments on the average size of the blue-whales killed in these areas (see page 38).

*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 0.68 blue-whale units, as compared with 0.73 and 0.94 units in the two preceding seasons, i.e. a decline of 6.8 per cent compared with 1959-60 and 27.7 per cent compared with 1958-59. The decrease was largest in area V, but there was also a decline in areas IV and I.

Season	Average result of blue-whale units per catcher's day's work.						
	Area II	Area III	Area IV	Area V	Area VI	Area I	All areas
1955-56 .....	0.98	0.89	0.96	1.14	0.90	1.35	0.99
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	—	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

North of 50° South the total catch amounted to about 1,850 blue-whale units. The average result per catcher's day's work was 1.11 units, which was thus a very high catch. South of 50° South the average catch amounted to 0.65 units per catcher's day's work, and this is perhaps the most correct figure to use when comparisons are made between this year's catch and the whaling results of previous years.

Table *n*, page 30, gives a survey of the pelagic whaling results of the individual participating countries as from 1937-38 (excl. the seasons 1939/40-1949/50) regarding the number of whales killed, oil production and number of catchers employed in each season.



**Table u.—Average weekly production of whale-oil per blue-whale unit in the pelagic whaling 1959-60 and 1960-61.**

Season 1959-60.				Season 1960-61.			
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.
2/1 1960 <sup>1)</sup>	139,024	1,399.7	99.3	31/12 1960 <sup>2)</sup>	106,716	1,077.9	99.0
9/1 "	153,047	1,393.5	109.8	7/1 1961	126,460	1,215.5	104.0
16/1 "	145,127	1,329.7	109.1	14/1 "	150,355	1,401.4	107.3
23/1 "	169,285	1,485.5	114.0	21/1 "	178,477	1,561.9	114.3
30/1 "	130,717	1,140.1	114.7	28/1 "	132,962	1,162.2	114.4
6/2 "	156,530	1,455.8	107.5	4/2 "	127,717	1,277.0	100.0
13/2 "	130,135	992.7	131.1	11/2 "	179,344	1,679.2	106.8
20/2 "	143,014	1,173.7	121.8	18/2 "	140,759	1,145.9	122.8
27/2 "	142,664	1,090.7	130.8	25/2 "	150,033	1,240.9	120.9
5/3 "	127,793	935.0	136.7	4/3 "	146,406	1,057.4	141.1
12/3 "	89,266	625.8	142.6	11/3 "	138,737	1,164.4	119.1
19/3 "	118,329	898.9	131.6	18/3 "	119,926	914.9	131.1
26/3 "	98,107	777.7	126.2	25/3 "	99,033	724.6	136.7
2/1 "	37,076	267.5	138.6	1/4 "	66,495	470.5	141.3
7/1 "	75,954	454.7	167.0	7/4 "	47,956	300.0	159.9
Total	1,856,068	15,421.0	120.4	Total	1,911,376	16,373.7	116.7

<sup>1)</sup> Include the catch and production of one expedition from and incl. December 16th 1959.

<sup>2)</sup> Include the catch and production of one expedition up to and incl. April 15th 1960.

<sup>3)</sup> Include the catch and production of one expedition from and incl. November 25th 1960.

### 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 season 1957-58 when only 2 shore stations were operating, 3 shore stations have carried on whaling from South Georgia. In the last season two of these stations were, however, operated as one unit. In 1960-61 2,317 whales were killed, against 2,333 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 1960-61 only 4 blue-whales were 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 1960-61 amounted to 103,318 barrels of whale-oil and 6,409 barrels of sperm-oil, or a total of 109,727 barrels. During the previous season the output was 93,147 barrels of whale-oil and 4,399 barrels of sperm-oil, or a total of 97,546 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 1952-53. 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 1937–38, 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				
	1956/57 Per cent	1957/58 Per cent	1958/59 Per cent	1959/60 Per cent	1960/61 Per cent
Norway .....	44.7	36.8	38.4	31.7	33.3
United Kingdom .....	17.0	17.3	13.6	13.4	13.7
Union of South Africa .....	3.9	—	—	—	—
Japan .....	21.9	27.1	30.0	28.7	29.9
U.S.S.R. ....	6.1	9.7	10.3	17.6	16.8
Netherlands .....	4.1	5.0	5.9	6.7	6.3
Argentina .....	2.3	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 116.9 barrels during the season 1960–61 against 120.5 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 1955–56.

Season	Average oil output per blue-whale unit during the last 6 seasons						
	Area II Barrels	Area III Barrels	Area IV Barrels	Area V Barrels	Area VI Barrels	Area I Barrels	Total Barrels
1955–56 ..	127.5	113.7	105.6	114.2	118.3	144.3	121.6
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

The highest yield in the last season was in area II with 140.3 barrels. In the other areas the yield varied between 101.9 and 115.1 barrels. In area III there was a very large decrease in the yield per blue-whale unit, to 112.8 barrels in 1960–61 as against 128.9 barrels in the previous season. There was also a comparatively large decrease in the areas V, VI and I compared with the season 1959–60.

Table *u*, page 40, is recording the average weekly production per blue-whale unit for the pelagic expeditions during the seasons 1959–60

**Table v.—Production of by-products in the Antarctic whaling in the seasons 1946/47—1960/61.**

By-products Seasons Countries	Whale meat-meal, bone-meal, grax meal, guano	Whale liver or liver flakes	Liver- oil	Liver meal	Whale meat, blubber, ventral grooves	Whale solubles	Other by- products <sup>1)</sup>
	Long tons	L. tons	L. tons	L. tons	L. tons	L. tons	L. tons
<i>1946-47</i> . . . . . Total	19,302	671	79	380	21,914	-	137
<i>1947-48</i> . . . . . 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
<i>1951-52</i> . . . . . Total	24,116	823	195	435	28,299	5,760	874
<i>1952-53</i> . . . . . 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
<i>1955-56</i> . . . . . Total	43,189	755	252	162	45,835	7,546	2,815
<i>1956-57.</i>							
Norway . . . . .	9,859	104	49	-	365	1,520	154
United Kingdom ..	18,156	56	39	156	5,060	5,006	239
Union of S. Africa .	3,557	-	18	-	-	-	-
Netherlands . . . . .	2,380	-	13	-	-	-	54
U.S.S.R. . . . .	2,471	532	-	-	-	-	-
Japan . . . . .	-	-	136	-	65,295	-	4,420
Argentina . . . . .	6,312	-	-	-	-	-	4
Total	42,735	692	255	156	70,720	6,526	4,871
<i>1957-58.</i>							
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
<i>1958-59.</i>							
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.S.S.R. . . . .	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
<i>1959-60.</i>							
Norway . . . . .	9,142	10	26	-	2,159	-	995
United Kingdom ..	18,129	-	4	-	6,080	1,038	1,197
Netherlands . . . . .	4,635	-	11	-	1,699	-	55
U.S.S.R. . . . .	12,150	1,306	-	-	2,106	-	-
Japan . . . . .	2,810	-	90	-	83,953	-	20,401
Argentina . . . . .	6,158	-	-	-	-	-	3
Total	53,024	1,316	131	-	95,997	1,038	22,651
<i>1960-61.</i>							
Norway . . . . .	6,508	5	12	-	4,852	-	1,480
United Kingdom ..	<sup>2)</sup> 24,015	-	-	-	<sup>2)</sup> 715	2,169	1,327
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	55,959	1,937	134	-	124,596	2,169	29,726

<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. <sup>2)</sup> Including 6,321 long-tons whale meat-meal etc. and 715 long tons whale meat etc. produced by a British company registered at Falkland Islands.

and 1960–61. It will be observed that the average yield per blue-whale unit is increasing as the whaling season proceeds, from 100–115 barrels in January up to about 130–140 barrels in March/April. It will also be observed that the average production recorded for the last week of operation is disproportionately high as compared with that of the previous weeks. At the close of the season, when the expeditions are sounding their oil tanks for controlling purposes, it usually appears that the production exceeds the previously stated figures with some hundred barrels, and this surplus is then included in the production report of the last week of operation.

#### *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 1956–57 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 124,596 tons compared with 95,997 and 78,658 tons during the two preceding seasons. Of whale meal there was produced 55,959 tons against 53,024 tons in 1959–60.

#### *Whaling fleet crews.*

From the survey below will be seen the number of men of different nationalities employed in the Antarctic whaling industry during the 3 latest seasons. The figures include the crews employed on the freezing- and refrigeratorships operating in the Antarctic.

Nationalities	Number of men employed in the Antarctic whaling industry					
	Season 1958/59		Season 1959/60		Season 1960/61	
	Number	Per cent	Number	Per cent	Number	Per cent
Norwegian . . . . .	6,817	39	6,152	34	5,377	27
British . . . . .	944	5	890	5	780	4
Japanese . . . . .	7,974	45	8,100	45	9,680	50
Russian <sup>1)</sup> . . . . .	1,020	6	2,000	11	2,900	15
Others <sup>2)</sup> . . . . .	792	5	787	5	759	4
<b>Total . . . . .</b>	<b>17,547</b>	<b>100</b>	<b>17,929</b>	<b>100</b>	<b>19,496</b>	<b>100</b>

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



**Table No. 1.—Whaling in the Antarctic in the season 1960/61.**

Geographical areas.	Species of whales caught.						Oil production. Barrels <sup>1)</sup>	Expeditions.		
	Blue.	Fin.	Hump-back.	Sei.	Sperm.	Total of whales.		Shore stations.	Floating factories.	Catchers.
South Georgia . . . . .	4	1,387	—	792	134	2,317	109,727	3	—	16
Antarctic, pelagic whaling . . . . .	1,740	27,374	718	4,310	4,666	<sup>2)</sup> 38,808	2,123,157	—	21	252
Total	1,744	28,761	718	5,102	4,800	41,125	2,232,884	3	21	268

<sup>1)</sup> Barrel = 170 kg. (Barrel = abt.  $\frac{1}{8}$  long ton, 1 long ton = 1,016 kg.) <sup>2)</sup> In addition 2 right-whales, 162 Minke-whales and 64 killer-whales.

**Table No. 2.—Whaling results for the various countries in the Antarctic in the season 1960/61.**

Countries. Geographical areas.	Species of whales caught.						Oil production. Barrels <sup>1)</sup>	Expeditions.		
	Blue.	Fin.	Hump-back.	Sei.	Sperm.	Total of whales.		Shore stations.	Floating factories.	Catchers.
Norway:—										
Antarctic, pelagic	138	9,825	80	701	1,745	<sup>2)</sup> 12,489	743,298	—	8	81
Japan:—										
Antarctic, pelagic	1,144	8,912	211	1,773	1,552	13,592	667,350	—	7	83
United Kingdom:—										
Antarctic, pelagic	107	2,361	115	736	177	3,496	196,472	—	2	22
South Georgia . . .	1	699	—	306	49	1,055	51,711	1	—	8
South Georgia <sup>3)</sup> . . .	3	688	—	486	85	1,262	58,016	2	—	8
U.S.S.R.:—										
Antarctic, pelagic	301	4,373	302	1,070	974	<sup>4)</sup> 7,020	376,263	—	3	52
Netherlands:—										
Antarctic, pelagic	50	1,903	10	30	218	<sup>2)</sup> 2,211	139,774	—	1	14
Total	1,744	28,761	718	5,102	4,800	41,125	2,232,884	3	21	268

<sup>1)</sup> Barrel = 170 kg. (Barrel = abt.  $\frac{1}{8}$  long ton, 1 long ton = 1,016 kg.) <sup>2)</sup> In addition 1 right-whale. <sup>3)</sup> Catch and oil production of a British company registered at Falkland Islands. <sup>4)</sup> In addition 162 Minke-whales and 64 killer-whales.

**Table No. 3.—Average size of whales caught in the Antarctic in the season 1960/61.**

Geographical areas. Number of whales measured.	Company.	Average size.		
		Males.	Females.	Total animals.
<b>Blue-whales.</b>				
<i>South Georgia</i> .....	No. 1	—	73.00	73.00
Males 1}	„ 2	70.00	74.00	72.67
Females 3} Total 4.				
Average		70.00	73.67	72.75
<i>Antarctic, pelagic whaling</i> .....	No. 1	77.36	81.78	80.50
Males 867}	„ 2	78.00	82.14	79.93
Females 872} Total 1,739.	„ 3	75.57	81.80	79.69
	„ 4	72.50	86.00	79.25
	„ 5	76.29	81.63	79.05
	„ 6	78.00	79.00	78.50
	„ 7	77.23	79.02	78.30
	„ 8	75.33	87.00	78.25
	„ 9	76.78	78.13	77.44
	„ 10	74.55	79.52	77.40
	„ 11	73.38	80.21	76.66
	„ 12	72.13	76.63	74.38
	„ 13	—	73.00	73.00
	„ 14	71.59	73.41	72.25
	„ 15	71.62	72.24	71.93
	„ 16	71.75	72.10	71.90
	„ 17	71.10	72.15	71.61
	„ 18	71.50	71.70	71.50
	„ 19	70.74	71.89	71.26
	„ 20	73.00	68.00	69.67
Average		72.77	75.24	74.01
<b>Fin-whales.</b>				
<i>South Georgia</i> .....	No. 1	63.35	65.48	64.47
Males 664}	„ 2	62.29	64.62	63.45
Females 694} Total 1,358.				
Average		62.80	65.06	63.96
<i>Antarctic, pelagic whaling</i> .....	No. 1	66.71	70.70	68.76
Males 13,069}	„ 2	65.84	69.39	67.75
Females 14,230} Total 27,299.	„ 3	66.89	68.41	67.69
	„ 4	65.52	69.12	67.55
	„ 5	65.74	69.01	67.44
	„ 6	65.56	69.31	67.43
	„ 7	65.95	68.97	67.42
	„ 8	65.10	68.92	67.25
	„ 9	65.21	68.93	67.19
	„ 10	65.48	69.15	67.13
	„ 11	65.18	68.86	66.94
	„ 12	64.57	68.60	66.86
	„ 13	65.10	68.79	66.78
	„ 14	65.17	68.05	66.71
	„ 15	64.63	68.23	66.57
	„ 16	64.07	67.16	65.71
	„ 17	64.06	67.03	65.65
	„ 18	63.92	67.22	65.64
	„ 19	64.15	66.52	65.42
	„ 20	62.25	65.44	64.17
	„ 21	62.58	65.27	63.92
Average		65.07	68.36	66.79

Table No. 3 (continued).

Geographical areas. Number of whales measured.	Company.	Average size.		
		Males.	Females.	Total animals.
		Engl. feet.	Engl. feet.	Engl. feet.
<b><u>Humpbacks.</u></b>				
<i>Antarctic, pelagic whaling</i> . . . . .	No. 1	42.67	45.33	44.00
Males 370 } Total 709.	" 2	40.76	44.00	42.50
Females 339 }	" 3	41.30	42.48	41.76
	" 4	41.40	42.00	41.70
	" 5	40.91	42.23	41.68
	" 6	41.02	42.45	41.65
	" 7	39.94	42.19	41.00
	" 8	41.00	-	41.00
	" 9	39.75	42.00	40.89
	" 10	40.35	41.40	40.75
	" 11	40.04	41.06	40.58
	" 12	41.00	40.00	40.50
	" 13	38.00	36.00	37.33
Average		40.59	42.24	41.38
<b><u>Sei-whales.</u></b>				
<i>South Georgia</i> . . . . .	No. 1	48.26	50.22	49.30
Males 361 } Total 777.	" 2	47.77	50.51	49.24
Females 416 }				
Average		47.96	50.40	49.27
<i>Antarctic, pelagic whaling</i> . . . . .	No. 1	-	52.83	52.83
Males 1,769 } Total 4,280.	" 2	50.15	53.15	52.01
Females 2,511 }	" 3	50.35	53.05	51.83
	" 4	48.86	52.13	51.37
	" 5	50.56	51.63	51.33
	" 6	48.71	52.15	51.19
	" 7	48.00	52.27	51.13
	" 8	49.23	51.37	50.99
	" 9	50.50	51.00	50.94
	" 10	48.40	51.82	50.56
	" 11	48.70	51.37	50.37
	" 12	48.32	51.00	50.07
	" 13	48.70	50.42	49.88
	" 14	48.62	51.09	49.75
	" 15	49.00	50.32	49.71
	" 16	47.61	51.19	49.54
	" 17	48.01	50.61	49.32
	" 18	48.06	50.12	49.15
	" 19	47.70	49.96	48.81
	" 20	47.25	49.06	48.02
	" 21	-	48.00	48.00
Average		48.55	51.37	50.20
<b><u>Sperm-whales.</u></b>				
<i>South Georgia</i> . . . . .	No. 1	47.05	-	47.05
Males 134.	" 2	46.57	-	46.57
Average		46.87	-	46.87



Table No. 3 (continued).

Geographical areas. Number of whales measured.	Company.	Average size.		
		Males.	Females.	Total animals.
<i>Antarctic, pelagic whaling</i> ..... Males 4,654.	No. 1	Engl. feet. 48.85	Engl. feet. —	Engl. feet. 48.85
	„ 2	48.21	—	48.21
	„ 3	47.87	—	47.87
	„ 4	47.75	—	47.75
	„ 5	47.64	—	47.64
	„ 6	47.31	—	47.31
	„ 7	47.21	—	47.21
	„ 8	47.13	—	47.13
	„ 9	46.87	—	46.87
	„ 10	46.79	—	46.79
	„ 11	46.73	—	46.73
	„ 12	46.46	—	46.46
	„ 13	46.35	—	46.35
	„ 14	46.25	—	46.25
	„ 15	46.22	—	46.22
	„ 16	46.09	—	46.09
	„ 17	45.75	—	45.75
	„ 18	45.64	—	45.64
	„ 19	45.11	—	45.11
	„ 20	44.63	—	44.63
	„ 21	44.25	—	44.25
Average		46.76	—	46.76

Table No. 4.—Whales caught in the Antarctic in the season 1960/61, by species, sex and size.

## Total Antarctic.

## Blue-whales.

Engl. feet.	Number of		Total animals.	Engl. feet.	Number of		Total animals.
	males.	females.			males.	females.	
61	1	—	1	83	9	14	23
62	—	1	1	84	7	17	24
63	4	—	4	85	7	16	23
64	4	1	5	86	1	12	13
65	2	3	5	87	2	13	15
66	7	6	13	88	—	24	24
67	12	3	15	89	—	7	7
68	9	6	15	90	—	10	10
69	8	6	14	91	—	5	5
70	213	130	343	92	—	7	7
71	143	118	261	94	—	2	2
72	126	104	230	95	—	2	2
73	90	98	188				
74	47	69	116	Sum	868	875	1,743
75	41	47	88				
76	35	39	74				
77	17	19	36				
78	20	18	38				
79	20	17	37				
80	18	23	41				
81	13	18	31				
82	12	20	32				
				Average size	{	Males: 72.77 feet	
					{	Females: 75.23 „	
					{	Total animals: 74.01 „	
				Per cent	{	Males: 49.80	
					{	Females: 50.20	

Table No. 4 (continued).

## Fin-whales.

Engl. feet.	Number of		Total animals.	Engl. feet.	Number of		Total animals.
	males.	females.			males.	females.	
45	1	—	1	70	896	1,066	1,962
48	1	—	1	71	440	935	1,375
49	—	2	2	72	271	1,110	1,381
50	4	7	11	73	153	1,153	1,306
51	13	5	18	74	66	946	1,012
52	16	17	33	75	34	870	904
53	24	24	48	76	22	545	567
54	40	36	76	77	6	350	356
55	43	31	74	78	1	186	187
56	27	21	48	79	—	107	107
57	515	427	942	80	—	62	62
58	557	411	968	81	—	13	13
59	594	520	1,114	82	—	4	4
60	684	595	1,279	83	—	1	1
61	648	526	1,174	Sum	13,733	14,924	28,657
62	730	570	1,300	Average size {			Males: 64.96 feet
63	865	544	1,409	Average size {			Females: 68.21 „
64	914	607	1,521	Average size {			Total animals: 66.65 „
65	1,157	585	1,742	Per cent {			Males: 47.92
66	1,228	568	1,796	Per cent {			Females: 52.08
67	1,378	654	2,032				
68	1,339	670	2,009				
69	1,066	756	1,822				

## Humpbacks.

33	1	2	3	47	7	19	26
34	—	2	2	48	3	7	10
35	10	7	17	49	—	8	8
36	18	7	25	50	—	4	4
37	20	10	30	51	—	2	2
38	41	23	64	Sum	370	339	709
39	50	28	78	Average size {			Males: 40.59 feet
40	49	30	79	Average size {			Females: 42.24 „
41	44	28	72	Average size {			Total animals: 41.38 „
42	46	36	82	Per cent {			Males: 52.19
43	22	42	64	Per cent {			Females: 47.81
44	36	35	71				
45	16	32	48				
46	7	17	24				

## Sei-whales.

40	2	1	3	55	10	154	164
41	2	8	10	56	—	70	70
42	7	6	13	57	2	56	58
43	28	15	43	58	—	11	11
44	60	24	84	59	—	3	3
45	99	30	129	60	1	—	1
46	198	55	253	62	—	1	1
47	298	119	417	Sum	2,130	2,927	5,057
48	382	191	573	Average size {			Males: 48.45 feet
49	390	266	656	Average size {			Females: 51.23 „
50	307	386	693	Average size {			Total animals: 50.06 „
51	165	400	565	Per cent {			Males: 42.12
52	109	450	559	Per cent {			Females: 57.88
53	45	382	427				
54	25	299	324				

Table No. 4 (continued).

## Sperm-whales.

Engl. feet.	Number of males.	Engl. feet.	Number of males.
38	32	48	514
39	60	49	427
40	97	50	430
41	129	51	307
42	237	52	191
43	325	53	112
44	362	54	50
45	456	55	21
46	535	56	8
47	495	Sum	4,788

Average size: Males: 46.76 feet.

## Right-whales.

1 female of 48 feet and 1 female of 57 feet.

Average size: Females: 52.50 feet.

## a. South Georgia.

## Blue-whales.

70	1	1	2	Average size {	Males:	70.00 feet
73	-	1	1		Females:	73.67 "
78	-	1	1		Total animals:	72.75 "
Sum	1	3	4	Per cent {	Males:	25.00
					Females:	75.00

## Fin-whales.

Engl. feet.	Number of		Total animals.	Engl. feet.	Number of		Total animals.	
	males.	females.			males.	females.		
49	-	1	1	69	28	33	61	
50	2	-	2	70	12	27	39	
51	2	2	4	71	14	35	49	
52	2	5	7	72	3	21	24	
53	1	3	4	73	1	25	26	
54	2	3	5	74	2	32	34	
55	1	3	4	75	-	20	20	
56	-	-	-	76	1	12	13	
57	70	48	118	77	1	10	11	
58	41	35	76	78	-	1	1	
59	47	48	95	79	-	3	3	
60	54	50	104	Sum	664	694	1,358	
61	52	41	93	Average size {	Males:	62.80 feet		
62	48	39	87		Females:	65.06 "		
63	50	30	80		Total animals:	63.96 "		
64	52	39	91		Per cent {	Males:	48.90	
65	52	37	89			Females:	51.10	
66	40	29	69					
67	51	36	87					
68	35	26	61					

Table No 4 (continued)

## Sei-whales.

Engl. feet.	Number of		Total animals.	Engl. feet.	Number of		Total animals.
	males.	females			males.	females.	
40	1	—	1	55	—	8	8
41	2	1	3	56	—	5	5
42	1	3	4	57	—	3	3
43	9	5	14				
44	6	9	15	Sum	361	416	777
45	26	13	39				
46	36	11	47				
47	54	22	76				
48	67	22	89	Average size	{	Males: 47.96 feet	
49	73	43	116		{	Females: 50.40 ..	
50	57	73	130		{	Total animals: 49.27 ..	
51	21	61	82	Per cent	{	Males: 46.46	
52	5	59	64		{	Females: 53.54	
53	1	32	33				
54	2	46	48				

## Sperm-whales.

Engl. feet.	Number of males	Engl. feet.	Number of males.
42	6	49	5
43	12	50	7
44	21	51	9
45	19	52	6
46	13	53	5
47	15	54	3
48	11	55	2
	Sum		134

Average size: Males: 46.87 feet.

Table No. 4 (continued).

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

Engl. feet.	Number of		Total animals.	Engl. feet.	Number of		Total animals.
	males.	females.			males.	females.	
61	1	—	1	83	9	14	23
62	—	1	1	84	7	17	24
63	4	—	4	85	7	16	23
64	4	1	5	86	1	12	13
65	2	3	5	87	2	13	15
66	7	6	13	88	—	24	24
67	12	3	15	89	—	7	7
68	9	6	15	90	—	10	10
69	8	6	14	91	—	5	5
70	212	129	341	92	—	7	7
71	143	118	261	94	—	2	2
72	126	104	230	95	—	2	2
73	90	97	187				
74	47	69	116				
75	41	47	88	Sum	867	872	1,739
76	35	39	74				
77	17	19	36	Average size	{	Males: 72.77 feet	
78	20	17	37		{	Females: 75.24 ..	
79	20	17	37		{	Total animals: 74.01 ..	
80	18	23	41	Per cent	{	Males: 49.86	
81	13	18	31		{	Females: 50.14	
82	12	20	32				

**Fin-whales.**

45	1	—	1	70	884	1,039	1,923
48	1	—	1	71	426	900	1,326
49	—	1	1	72	268	1,089	1,357
50	2	7	9	73	152	1,128	1,280
51	11	3	14	74	64	914	978
52	14	12	26	75	34	850	884
53	23	21	44	76	21	533	554
54	38	33	71	77	5	340	345
55	42	28	70	78	1	185	186
56	27	21	48	79	—	104	104
57	445	379	824	80	—	62	62
58	516	376	892	81	—	13	13
59	547	472	1,019	82	—	4	4
60	630	545	1,175	83	—	1	1
61	596	485	1,081	Sum	13,069	14,230	27,299
62	682	531	1,213				
63	815	514	1,329	Average size	{	Males: 65.07 feet	
64	862	568	1,430		{	Females: 68.36 ..	
65	1,105	548	1,653		{	Total animals: 66.79 ..	
66	1,188	539	1,727	Per cent	{	Males: 47.87	
67	1,327	618	1,945		{	Females: 52.13	
68	1,304	644	1,948				
69	1,038	723	1,761				

Table No. 4 (continued).

**Humpbacks.**

Engl. feet.	Number of		Total animals.	Engl. feet.	Number of		Total animals.				
	males.	females.			males.	females.					
33	1	2	3	47	7	19	26				
34	—	2	2	48	3	7	10				
35	10	7	17	49	—	8	8				
36	18	7	25	50	—	4	4				
37	20	10	30	51	—	2	2				
38	41	23	64	Sum	370	339	709				
39	50	28	78	Average size { Males: 40.59 feet Females: 42.24 „ Total animals: 41.38 „							
40	49	30	79								
41	44	28	72								
42	46	36	82								
43	22	42	64								
44	36	35	71								
45	16	32	48								
46	7	17	24								
								Per cent { Males: 52.19 Females: 47.81			

**Sei-whales.**

40	1	1	2	56	—	65	65				
41	—	7	7	57	2	53	55				
42	6	3	9	58	—	11	11				
43	19	10	29	59	—	3	3				
44	54	15	69	60	1	—	1				
45	73	17	90	61	—	—	—				
46	162	44	206	62	—	1	1				
47	244	97	341	Sum	1,769	2,511	4,280				
48	315	169	484	Average size { Males: 48.55 feet Females: 51.37 „ Total animals: 50.20 „							
49	317	223	540								
50	250	313	563								
51	144	339	483								
52	104	391	495								
53	44	350	394								
54	23	253	276								
55	10	146	156								
								Per cent { Males: 41.33 Females: 58.67			

**Sperm-whales.**

Engl. feet.	Number of males.	Engl. feet.	Number of males.
38	32	48	503
39	60	49	422
40	97	50	423
41	129	51	298
42	231	52	185
43	313	53	107
44	341	54	47
45	437	55	19
46	522	56	8
47	480	Sum	4,654

Average size: Males: 46.76 feet.

**Right-whales.**

1 female of 48 feet and 1 female of 57 feet. Average size: 52.50 feet.

**Table No. 5.—Whales caught in the Antarctic in the season 1960/61, by species, sex and groups of size.**

**Total Antarctic.  
Blue-whales.**

	Number of whales.	Per cent.
Group 1. (70 feet and less) .....	416	23.87
„ 2. (71 feet to and incl. 85 feet) .....	1,242	71.25
„ 3. (above 85 feet) .....	85	4.88
	1,743	100.00
Immature males .....	619	71.31
„ females .....	631	72.11
„ animals .....	1,250	71.72
Mature males .....	249	28.69
„ females .....	244	27.89
„ animals .....	493	28.28

**Fin-whales.**

	Number of whales.	Per cent.
Group 1. (55 feet and less) .....	264	0.92
„ 2. (56 feet to and incl. 65 feet) .....	11,497	40.12
„ 3. (above 65 feet) .....	16,896	58.96
	28,657	100.00
Immature males .....	3,897	28.38
„ females .....	4,343	29.10
„ animals .....	8,240	28.75
Mature males .....	9,836	71.62
„ females .....	10,581	70.90
„ animals .....	20,417	71.25

**a. South Georgia.  
Blue-whales.**

	Number of whales.	Per cent.
Group 1. (70 feet and less) .....	2	50.00
„ 2. (71 feet to and incl. 85 feet) .....	2	50.00
„ 3. (above 85 feet) .....	—	—
	4	100.00
Immature males .....	1	100.00
„ females .....	2	66.67
„ animals .....	3	75.00
Mature males .....	—	—
„ females .....	1	33.33
„ animals .....	1	25.00

Table No. 5 (continued).

## Fin-whales.

	Number of whales.	Per cent.
Group 1. (55 feet and less) .....	27	1.99
„ 2. (56 feet to and incl. 65 feet) .....	833	61.34
„ 3. (above 65 feet) .....	498	36.67
	1,358	100.00
Immature males .....	322	48.49
„ females .....	347	50.00
„ animals .....	669	49.26
Mature males .....	342	51.51
„ females .....	347	50.00
„ animals .....	689	50.74

## b. Antarctic, pelagic whaling.

## Blue-whales.

	Number of whales.	Per cent.
Group 1. (70 feet and less) .....	414	23.81
„ 2. (71 feet to and incl. 85 feet) .....	1,240	71.30
„ 3. (above 85 feet) .....	85	4.89
	1,739	100.00
Immature males .....	618	71.28
„ females .....	629	72.13
„ animals .....	1,247	71.71
Mature males .....	249	28.72
„ females .....	243	27.87
„ animals .....	492	28.29

## Fin-whales.

	Number of whales.	Per cent.
Group 1. (55 feet and less) .....	237	0.87
„ 2. (56 feet to and incl. 65 feet) .....	10,664	39.06
„ 3. (above 65 feet) .....	16,398	60.07
	27,299	100.00
Immature males .....	3,575	27.35
„ females .....	3,996	28.08
„ animals .....	7,571	27.73
Mature males .....	9,494	72.65
„ females .....	10,234	71.92
„ animals .....	19,728	72.27



**Table No. 6.—Average production of oil per blue-whale unit in the Antarctic in the season 1960/61.**

Other whales are reduced to blue-whale equivalents on the following basis:—

1 blue-whale = 2 fin-whales = 2½ humpbacks = 6 sei-whales.

Geographical areas.	Company.	Blue-whale units. <sup>1)</sup>	Oil production.	
			Total.	Average per blue-whale unit.
<i>South Georgia</i> .....	No. 1	389.2	49,623	127.5
	.. 2	423.3	53,695	126.8
	Total	812.5	103,318	127.2
<i>Antarctic, pelagic whaling</i> .....	No. 1	716.2	102,898	143.7
	.. 2	881.0	122,190	138.7
	.. 3	792.1	107,814	136.1
	.. 4	594.4	78,489	132.0
	.. 5	481.2	63,161	131.3
	.. 6	1,135.0	148,765	131.1
	.. 7	674.9	88,326	130.9
	.. 8	1,006.0	129,526	128.8
	.. 9	728.2	92,695	127.3
	.. 10	659.5	80,400	121.9
	.. 11	745.0	85,806	115.2
	.. 12	454.6	51,410	113.1
	.. 13	643.0	70,072	109.0
	.. 14	902.0	98,041	108.7
	.. 15	915.0	96,703	105.7
	.. 16	944.3	97,294	103.0
	.. 17	758.3	75,552	99.6
	.. 18	842.5	83,529	99.1
	.. 19	719.4	70,291	97.7
	.. 20	1,039.5	100,094	96.3
	.. 21	754.5	72,059	95.5
Total		16,386.6	1,915,118	116.9

<sup>1)</sup> This refers to whales worked up. <sup>2)</sup> Barrel = 170 kg. (Barrel = abt. ¼ long ton, 1 long ton = 1,016 kg.)

**Table No. 7.—Size of pregnant whale females caught in the Antarctic in the season 1960/61.**

Blue-whale females.

Length of mothers.	Number of pregnant animals.	Length of mothers.	Number of pregnant animals.	
Engl. feet.		Engl. feet.		
70	33	83	9	Number of foetuses measured ..... 282 of which twin pairs ..... 3 Total number of blue-whale females measured 875, of which pregnant animals 279, or 31.89 per cent. Total number of mature blue-whale females (above 76 feet) measured 244, of which pregnant animals 112, or 45.90 per cent.
71	32	84	8	
72	26	85	9	
73	28	86	5	
74	20	87	8	
75	14	88	14	
76	14	89	4	
77	4	90	6	
78	6	91	3	
79	6	92	4	
80	9	94	2	
81	8	95	1	
82	6			
		Total	279	

Table No. 7 (continued).

## Fin-whale females.

Length of mothers.	Number of pregnant animals.	Length of mothers.	Number of pregnant animals.	Number of foetuses measured . . . . . 5,844 of which twin pairs . . . . . 53 » » triplets . . . . . 2 Total number of fin-whale females measured 14,929, of which pregnant animals 5,787, or 38.76 per cent. Total number of mature fin-whale females (above 64 feet) measured 10,581, of which pregnant animals 5,671, or 53.60 per cent.
Engl. feet.		Engl. feet.		
58	1	72	687	
59	—	73	723	
60	3	74	596	
61	3	75	545	
62	9	76	360	
63	26	77	233	
64	74	78	124	
65	95	79	71	
66	178	80	44	
67	226	81	6	
68	309	82	1	
69	356	83	1	
70	557			
71	559			
		Total	5,787	

## Humpback females.

Length of mothers.	Number of pregnant animals.	Length of mothers.	Number of pregnant animals.	Number of foetuses measured . . . . . 142 of which twin pairs . . . . . 2 » » triplets . . . . . 1 Total number of humpback females measured 339, of which pregnant animals 138, or 40.71 per cent. Total number of mature humpback females (above 40 feet) measured 230, of which pregnant animals 109, or 47.39 per cent.
Engl. feet.		Engl. feet.		
36	1	44	17	
37	1	45	15	
38	3	46	5	
39	9	47	12	
40	15	48	1	
41	11	49	5	
42	18			
43	25			
		Total	138	

## Sei-whale females.

Length of mothers.	Number of pregnant animals.	Length of mothers.	Number of pregnant animals.	Total number of foetuses measured . . . . . 1,436 of which twin pairs . . . . . 14
Engl. feet.		Engl. feet.		
43	1	52	224	
44	3	53	221	
45	5	54	165	
46	12	55	92	
47	27	56	39	
48	77	57	35	
49	124	58	5	
50	194	59	3	
51	194	62	1	
		Total	1,422	

## Right-whale female.

1 pregnant animal of 48 feet. -- Number of foetuses measured 1.

**Table No. 8.—Whale foetuses measured in the Antarctic in the season 1960/61, by species and groups of size, in each month.**

**Blue-whale foetuses.**

Groups of size. Engl. feet.	February	March	April	Total
0'—0' 11" .....	2	—	—	2
2'—2' 11" .....	—	1	—	1
3'—3' 11" .....	2	—	—	2
4'—4' 11" .....	3	1	—	4
5'—5' 11" .....	1	—	—	1
6'—6' 11" .....	4	2	—	6
7'—7' 11" .....	12	1	—	13
8'—8' 11" .....	11	1	—	12
9'—9' 11" .....	10	1	—	11
10'—10' 11" .....	13	5	—	18
11'—11' 11" .....	18	—	—	18
12'—12' 11" .....	20	3	—	23
13'—13' 11" .....	17	8	—	25
14'—14' 11" .....	25	9	—	34
15'—15' 11" .....	16	12	—	28
16'—16' 11" .....	7	7	1	15
17'—17' 11" .....	19	6	—	25
18'—18' 11" .....	14	5	1	20
19'—19' 11" .....	6	4	—	10
20'—20' 11" .....	7	3	—	10
21'—21' 11" .....	—	1	—	1
23'—23' 11" .....	1	1	—	2
24'—24' 11" .....	—	1	—	1
Total blue-whale foetuses .....	208	72	2	282
Average size of foetuses .....	13' 1"	14' 11"	17' 0"	13' 7"

**Fin-whale foetuses.**

Groups of size. Engl. feet.	Oct.	Nov.	Dec.	Jan.	Febr.	March	April	Total
0'—0' 11" .....	3	5	8	18	5	—	—	39
1'—1' 11" .....	5	2	32	80	28	11	—	158
2'—2' 11" .....	2	5	48	141	57	22	1	276
3'—3' 11" .....	5	11	69	195	89	28	4	401
4'—4' 11" .....	2	6	83	274	113	49	9	536
5'—5' 11" .....	—	8	78	263	121	45	10	525
6'—6' 11" .....	—	4	82	280	143	77	4	590
7'—7' 11" .....	—	3	62	242	141	95	4	547
8'—8' 11" .....	—	1	49	223	175	96	6	550
9'—9' 11" .....	—	—	19	185	152	90	6	452
10'—10' 11" .....	—	—	9	134	151	101	4	399
11'—11' 11" .....	—	—	1	87	136	88	8	320
12'—12' 11" .....	—	—	1	52	137	100	11	301
13'—13' 11" .....	—	—	—	19	83	78	10	190
14'—14' 11" .....	—	—	—	10	78	95	13	196
15'—15' 11" .....	—	—	1	5	52	70	7	135
16'—16' 11" .....	—	1	—	1	30	62	6	100
17'—17' 11" .....	—	—	—	—	18	41	9	68
18'—18' 11" .....	—	—	—	1	4	21	6	32
19'—19' 11" .....	—	—	—	—	2	6	5	13
20'—20' 11" .....	—	—	—	—	2	9	4	15
22'—22' 11" .....	—	—	—	—	—	1	—	1
Total fin-whale foetuses	17	46	542	2,210	1,717	1,185	127	5,844
Average size of foetuses	2' 2"	4' 1"	5' 2"	6' 5"	8' 8"	10' 6"	11' 6"	7' 10"

Table No. 8 (continued)

## Humpback foetuses.

Groups of size. Engl. feet.	Jan.	Febr.	Total.
0'—0' 11" .....	2	—	2
1'—1' 11" .....	32	—	32
2'—2' 11" .....	63	1	64
3'—3' 11" .....	36	1	37
4'—4' 11" .....	6	—	6
5'—5' 11" .....	1	—	1
Total humpback foetuses .....	140	2	142
Average size of foetuses .....	2' 5"	2' 6"	2' 5"

## Sei-whale foetuses.

Groups of size. Engl. feet	Oct.	Dec.	Jan.	Febr.	March.	April.	Total.
0'— 0' 11" .....	—	1	—	—	—	—	1
1'— 1' 11" .....	1	—	1	—	—	—	2
2'— 2' 11" .....	—	1	4	4	1	—	10
3'— 3' 11" .....	—	1	18	16	3	2	40
4'— 4' 11" .....	—	1	24	25	12	1	63
5'— 5' 11" .....	—	7	33	41	16	2	99
6'— 6' 11" .....	—	7	68	68	22	9	174
7'— 7' 11" .....	—	6	70	93	28	4	201
8'— 8' 11" .....	—	—	64	131	50	7	252
9'— 9' 11" .....	—	—	22	120	58	3	203
10'—10' 11" .....	—	—	6	81	72	9	168
11'—11' 11" .....	—	—	2	21	67	12	102
12'—12' 11" .....	—	—	1	16	48	5	70
13'—13' 11" .....	—	—	—	—	30	5	35
14'—14' 11" .....	—	—	—	1	7	2	10
15'—15' 11" .....	—	—	—	1	2	1	4
16'—16' 11" .....	—	—	—	1	—	—	1
17'—17' 11" .....	—	—	—	—	—	1	1
Total sei-whale foetuses .....	1	24	313	619	416	63	1,436
Average size of foetuses .....	1' 5"	5' 7"	6' 9"	8' 1"	9' 8"	9' 5"	8' 3"

## Right-whale foetuses.

1 of the size 5'—5' 11" measured in January.

Table No. 9.—Whale foetuses measured in the Antarctic in the season 1960/61, by species and sex, in each month.

Kind of foetuses. Months.	Number of		Sex not stated.	Total foetuses.	Number of males per 100 females.
	males.	females.			
<b>Blue-whale foetuses.</b>					
February .....	101	105	2	208	96.19
March .....	31	41	—	72	75.61
April .....	—	2	—	2	—
Total	132	148	2	282	89.19

Table No. 9 (continued).

Kind of foetuses. Months.	Number of		Sex not stated.	Total foetuses.	Number of males per 100 females.
	males.	females.			
<b>Fin-whale foetuses.</b>					
October .....	11	6	—	17	183.33
November .....	26	19	1	46	136.84
December .....	261	280	1	542	93.21
January .....	1,170	1,037	3	2,210	112.83
February .....	875	839	3	1,717	104.29
March .....	588	597	—	1,185	98.49
April .....	56	71	—	127	78.87
Total	2,987	2,849	8	5,844	104.84
<b>Humpback foetuses.</b>					
January .....	67	73	—	140	91.78
February .....	1	1	—	2	100.00
Total	68	74	—	142	91.89
<b>Sei-whale foetuses.</b>					
October .....	—	1	—	1	—
December .....	10	14	—	24	71.43
January .....	159	154	—	313	103.25
February .....	288	330	1	619	87.27
March .....	189	226	1	416	83.63
April .....	26	36	1	63	72.22
Total	672	761	3	1,436	88.30
<b>Right-whale foetuses.</b>					
January .....	—	1	—	1	—

