

INTERNATIONAL
WHALING STATISTICS

LXVII

EDITED BY
THE COMMITTEE FOR WHALING STATISTICS



OSLO 1971

INTERNATIONAL
WHALING STATISTICS
LXVII

EDITED BY
THE COMMITTEE FOR WHALING STATISTICS



OSLO 1971

PRINTED BY
GRØNDAHL & SØN, OSLO

CONTENTS

Preface	Page 5
Introduction	" 7
Supplementary tables to the introduction	" 9
Production of by-products	" 20
Catch of small whales	" 20
Table No. 1.—Whaling in 1969/70 and summer 1970	" 25
Table No. 2.—Whaling of Japan in 1969/70 and summer 1970	" 26
Table No. 3.—Whaling of U.S.S.R. in 1969/70 and summer 1970	" 26
Table No. 4.—Whaling results for the various countries in 1969/70 and summer 1970	" 26
Table No. 5.—Average size of whales caught 1970	" 27
Table No. 6.—Whales caught in 1970, by species, sex and size and by whaling grounds	" 29
Natal	" 29
Norway	" 31
Brazil	" 32
Iceland	" 32
Newfoundland	" 33
Nova Scotia	" 34
California	" 34
North Pacific Ocean and Bering Sea, pelagic, Japan	" 36
—, — —, — ,, , U.S.S.R.	" 37
Japan, coastal	" 38
Australia	" 39
South Atlantic Ocean, pelagic	" 39
Indian Ocean, pelagic	" 40
South Pacific Ocean, pelagic	" 40
Table No. 7.—Average production of oil per „blue-whale equivalent” in 1970	" 41
Table No. 8.—Average production of oil per sperm-whale in 1970	" 42

PREFACE

The Committee of International Whaling Statistics has lost one of its members. Mr. Gunnar Jahn died on 31st January 1971. Mr. Jahn has been the chairman of the committee since it was appointed by the Norwegian Government in 1929.

The present publication, International Whaling Statistics No. LXVII, comprises data from whaling operations in the Antarctic during the season 1969/70 and on grounds outside the Antarctic in the calendar year 1970.

One catcher with freezing- and oil plant and one floating factory of 1,957 gross tons with 2 catchers have operated in 1970, but we have not been able to obtain information on their catch.

Further statistical data relating to sex and size of the whales killed have not been received from

The Azores, Madeira, Spain and Peru.

O s l o , December 1971.

Birger Bergersen.

Einar Vangstein.

INTRODUCTION

This publication comprises the world aggregate whaling results for 1970, i.e. the catch in the Antarctic during the season 1969/70 and the catch on grounds outside the Antarctic during the calendar year 1970. Details respecting the Antarctic catch were given in International Whaling Statistics No. LXVI, while the present volume gives specifications of the operations on grounds outside the Antarctic in 1970.

A former catcher renamed "Run" belonging to Run Fishing Co. has been converted to a combined catcher/factory-ship which flies the flag of the Bahamas, has been operating outside the coast of Africa since medio 1967. "Sao Nicolau" of 1,957 gross tons (owners Ascension Inc., Monrovia) with 2 catchers have operated off the coast of South Africa in 1970. No information about the catch results of these two expeditions has been obtainable.

In the earlier publications of International Whaling Statistics supplementary tables to the introduction (historical tables, see tables starting from page 9) have been printed. These tables have given information on catch and production for the past about 10 years. In order to prevent the printing of too long historical tables, and in order to have all those tables in one volume starting in the same year, it will from now on only be printed every ten years tables covering the past ten years. In the period between the tables would be accumulative over that period. In this publication the historical tables start with the catch and production in 1969 and 1970. Next year the catch in 1971 will be added, in 1973 catch in 1972 will be added and so on until the next ten years period has been covered.

The most important areas outside the Antarctic are those in the North Pacific. In 1970 two Soviet-Russian and three Japanese pelagic expeditions carried on whaling in this area. Altogether 930 fin-whales and 4,083 sei- and Bryde-whales were caught, corresponding to 1,146 blue-whale units. In addition 11,285 sperm-whales were caught. The production amounted to 489,677 barrels of oil, compared to 393,291 barrels in Antarctic in the season 1969/70.

The pelagic catch in the North Pacific was reduced by 239 fin-whales and 599 sei- and Bryde-whales as compared to the year 1969.

It may be mentioned that some of the Antarctic floating factories on their voyage in 1970 from and to the Antarctic whaling grounds north of 40° South Latitude caught 3,123 sperm-whales (South Atlantic Ocean, 978, Indian Ocean, 1,449 and South Pacific Ocean, 696) as compared to 1,862 in 1969.

From table *a*, it will be seen that whaling on grounds outside the Antarctic during the season 1970 was carried on from 21 shore stations and 5 floating factories with a total of 105 catchers.

Table *z*¹, shows the production of by-products in the Antarctic and on grounds outside the Antarctic during the last two seasons.

The main by-products are whale meat and whale meal, the total production of which in 1970 amounted to 163,458 tons and 45,183 tons respectively. Of these quanta 85,512 tons of whale meat and 13,745 tons of whale meal were produced in the Antarctic.

Tables *z*²⁻⁹, give information on the catch of small whales on the various grounds both outside and in the Antarctic.

Annex.

Supplementary Tables to the Introduction.

Table a.—Whaling matériel in operation.

Years. ¹⁾	All whaling grounds.			Antarctic.			Others.		
	Shore stations.	Floating factories.	Catchers.	Shore stations.	Floating factories.	Catchers.	Shore stations.	Floating factories.	Catchers.
1968-69	21	12	191	—	6	84	21	6	107
1969-70	21	11	190	—	6	85	21	5	105

¹⁾ 1968/69 = Antarctic season 1968/69 and outside the Antarctic in the calendar year 1969 a. s. o.

Table b.—Whales killed, by species.

Years.	Blue.	Fin.	Hump-back.	Sei.	Sperm.	Others.	Total of whales.
1968-69.....	—	5,320	5	12,042	24,217	288	41,872
1969-70.....	8	5,057	15	¹⁾ 11,195	25,830	149	42,254

¹⁾ Including 144 Bryde-whales.

Table c.—Whales killed in the various main areas.

Years.	All areas.		Antarctic.		Africa.		North Atlantic and Arctic. ¹⁾		Pacific, north. ²⁾		Japan.	
	No. of whales killed.	Per cent.	No. of whales killed.	Per cent.	No. of whales killed.	Per cent.	No. of whales killed.	Per cent.	No. of whales killed.	Per cent.	No. of whales killed.	Per cent.
1968-69.....	41,872	100	11,478	27.4	2,078	5.0	1,246	3.0	183	0.4	4,299	10.3
1969-70.....	42,254	100	11,949	28.3	1,880	4.4	1,203	2.8	73	0.2	4,118	9.7
	North Pacific Ocean and Bering Sea (pelagic).				Chile.		Peru.		Australia and New Zealand.		Others.	
	Japan		U.S.S.-R.									
1968-69.....	7,167	17.1	9,895	23.6	—	—	2,305	5.5	679	1.6	2,542	6.1
1969-70.....	6,453	15.3	9,845	23.3	103	0.2	1,935	4.6	799	1.9	3,896	9.3

¹⁾ Excluding Spain, Azores and Madeira. ²⁾ Excluding Japan and North Pacific Ocean and Bering Sea

Table d.—Oil production in the various main areas.

Years.	All areas.			Antarctic.			Africa.			North Atlantic and Arctic. ¹⁾			Pacific North. ²⁾			Japan		
	Total oil output.	%	Oil output per catcher.	Total oil output.	%	Oil output per catcher.	Total oil output.	%	Oil output per catcher.	Total oil output.	%	Oil output per catcher.	Total oil output.	%	Oil output per catcher.	Total oil output.	%	Oil output per catcher.
	Barrels. ²⁾		Barrels.	Barrels.		Barrels.	Barrels.		Barrels.	Barrels.		Barrels.	Barrels.		Barrels.	Barrels.		Barrels.
1968-69..	1,217,340	100	6,055	385,822	31.7	4,593	50,657	4.1	7,237	43,329	3.5	3,333	4,533	0.4	1,511	87,124	7.2	6,223
1969-70..	1,229,777	100	5,969	393,291	32.0	4,626	45,002	3.7	6,429	38,252	3.1	3,188	1,724	0.1	575	74,273	6.0	6,189
	North Pacific Ocean and Bering Sea (pelagic).						Chile.			Peru.			Australia and New Zealand.			Others.		
	Japan			U.S.S.R.														
1968-69..	174,900	14.4	6,478	322,436	26.5	10,401	-	-	-	46,978	3.9	9,395	27,045	2.2	9,015	74,516	6.1	.
1969-70..	181,159	14.7	6,709	308,518	25.1	10,284	1,290	0.1		40,245	3.3	10,061	33,307	2.7	11,102	112,716	9.2	.

¹⁾ Excluding Spain, Azores and Madeira. ²⁾ Excluding Japan, North Pacific Ocean and Bering Sea.

**Table e.—Whaling results for the
Number of whales killed.**

Years.	All countries.	Australia.	Brazil.	Canada.	Chile.	Iceland.	Japan.
<i>Absolute figures:</i>							
1968-69.....	41,872	679	137	695	¹⁾	423	17,128
1969-70.....	42 254	799	102	712	103	377	17,047
<i>Percentage figures:</i>							
	%	%	%	%	%	%	%
1968-69.....	100.0	1.6	0.3	1.7	—	1.0	40.9
1969-70.....	100.0	1.9	0.3	1.7	0.2	0.9	40.4

¹⁾ No information.

**Table f.—Whaling results for the
Oil production in barrels.¹⁾**

Years.	All countries.	Australia.	Brazil.	Canada.	Chile.	Iceland.	Japan.
<i>Absolute figures:</i>							
1968-69.....	1,217,340	27,045	5,046	20,376	³⁾	16,518	432,633
1969-70.....	1,230,530	33,307	5,592	18,978	1,290	14,647	445,372
<i>Percentage figures:</i>							
	%	%	%	%	%	%	%
1968-69.....	100.0	2.2	0.4	1.7	—	1.4	35.5
1969-70.....	100.0	2.7	0.4	1.5	0.1	1.2	36.2

¹⁾ Barrel = 170 kg. (Barrel = abt. $\frac{1}{4}$ long ton, 1 long ton = 1,016 kg.) ²⁾ Calculated. ³⁾ No information.

various countries. All areas.

Number of whales killed.

Years.	Norway.	Peru.	Portugal.	Spain.	South Africa.	United States of America.	U.S.S.R.
<i>Absolute figures:</i>							
1968-69.....	128	2,305	228	315	2,078	183	17,573
1969-70.....	228	1,935	249	413	1,880	73	18,336
<i>Percentage figures:</i>							
	%	%	%	%	%	%	%
1968-69.....	0.3	5.5	0.5	0.8	5.0	0.4	42.0
1969-70.....	0.5	4.6	0.6	0.9	4.4	0.2	43.4

various countries. All areas.

Oil production in barrels.¹⁾

Years.	Norway.	Peru.	Portugal.	Spain.	South Africa.	United States of America.	U.S.S.R.
<i>Absolute figures:</i>							
1968-69.....	6,435	46,978	5,364 ²⁾	8,740	50,657	4,533	593,015
1969-70.....	6,835	40,245	6,293 ²⁾	11,300	45,002	1,724	599,945
<i>Percentage figures:</i>							
	%	%	%	%	%	%	%
1968-69.....	0.5	3.9	0.4	0.7	4.2	0.4	48.7
1969-70.....	0.6	3.3	0.5	0.9	3.7	0.1	48.8

Table g.—Sperm-oil production.

Grounds	1) 1968/69	1969/70
	Barrels	Barrels
Antarctic, pelagic	113,764	125,027
Africa:—		
Natal	42,200	42,319
South Atlantic, pelagic	³⁾ 26,847	³⁾ 29,956
Brazil	4,166	932
North Atlantic and Arctic:—		
Azores	3,999	5,432
Madeira	1,365	861
Spain	²⁾ 3,860	²⁾ 5,220
Norway	5,820	2,711
Iceland	5,378	3,254
Newfoundland	342	94
Nova Scotia	—	1,153
Pacific North:—		
California	1,034	1,520
Bering Sea, Japan	100,882	123,582
» » U S S R	290,487	288,567
Japan, coastal	79,300	67,827
Indian Ocean	³⁾ 28,519	³⁾ 40,496
South Pacific Ocean	—	³⁾ 19,407
Peru	36,663	31,047
Australia	27,045	33,307
	771,671	822,712
Of which produced by:		
Norway	5,820	4,619
South Africa	42,200	42,319
Japan	188,860	221,402
U S S R	450,939	471,552
Canada	342	1,247
Portugal	5,364	6,293
Australia	27,045	33,307
Spain	²⁾ 3,860	²⁾ 5,220
Iceland	5,378	3,254
Peru	36,663	31,047
Brazil	4,166	932
U.S.A.	1,034	1,520

1) 1968/69 = Antarctic season 1968/69 and outside the Antarctic in the calendar year 1969 a. s. o.

2) Calculated.

3) Produced by floating factories on their voyage to and from the Antarctic.

Table h.—Average size of whales killed in the different grounds.

Species of whales and whaling grounds.	1970	1969
	Engl.ft.	Engl.ft.
<u>Fin-whales.</u>		
Antarctic:—		
Pelagic whaling	66.40	66.63
Africa:—		
Natal	60.55	61.28
Brazil	—	—
North Atlantic and Arctic:		
Norway	63.09	57.69
Iceland	60.86	61.11
Newfoundland	59.30	59.33
Nova Scotia	56.89	56.73
Pacific North:—		
California	59.20	58.48
Bering Sea, Japan	62.48	61.33
» » U.S.S.R.	60.89	60.37
Japan, coastal	60.10	60.58
<u>Sei-whales.</u>		
Antarctic:		
Pelagic whaling	47.90	47.97
Africa:—		
Natal	44.75	42.67
Brazil	49.85	—
North Atlantic and Arctic:		
Norway	—	—
Iceland	44.95	44.87
Newfoundland	—	—
Nova Scotia	44.55	44.51
Pacific North:—		
California	44.75	44.30
Bering Sea, Japan	45.15	44.92
» » U.S.S.R.	44.71	44.50
Japan coastal	42.95	44.96
Australia	—	—
<u>Sperm-whales.</u>		
Antarctic:—		
Pelagic whaling	44.90	45.48
Africa:—		
Natal	37.10	36.29
South Atlantic, pelagic	41.50	41.55
Brazil	37.16	—
North Atlantic and Arctic:		
Norway	49.59	49.32
Iceland	49.85	49.41
Newfoundland	—	—
Nova Scotia	—	—
Pacific North:—		
California	38.74	38.62
Bering Sea, Japan	44.65	41.96
» » U.S.S.R.	41.20	42.33
Japan coastal	36.82	37.25
South Pacific Ocean, pel	40.99	—
Indian Ocean, pel	40.59	41.45
Australia	43.59	42.74

Table i.—North Atlantic and Arctic.
(Exclusive Azores, Madeira and Spain.)

Grounds.	Years.	Species of whales caught.							Oil production.	Expeditions. ¹⁾		
		Blue.	Fin.	Hump-back.	Sei.	Sperm.	Others.	Total of whales.		Shore stations.	Floating factories.	Catchers.
<i>North Atlantic and Arctic. Total</i>	1969	—	800	5	222	219	—	1,246	43,329	6	—	13
	1970	—	911	15	138	139	—	1,203	38,252	5	—	12
<i>Norway.</i>	1969	—	16	—	1	111	—	128	6,435	2	—	4
	1970	—	44	—	—	51	—	95	4,327	1	—	2
<i>Iceland.</i>	1969	—	251	—	69	103	—	423	16,518	1	—	4
	1970	—	272	—	44	61	—	377	14,647	1	—	4
<i>Nova Scotia.</i>	1969	—	157	—	149	—	—	306	7,033	1	—	2
	1970	—	170	1	93	25	—	289	7,168	1	—	2
<i>Newfoundland and Labrador.</i>	1969	—	376	5	3	5	—	389	13,343	2	—	3
	1970	—	406	14	1	2	—	423	11,810	2	—	3
<i>Pelagic.</i>	1970	—	19	—	—	—	—	19	300	—	—	1

¹⁾ Barrel = 170 kg. (Barrel = abt. $\frac{1}{8}$ long ton).

Table j.—Azores.

Years	Species of whales caught.							Oil production.	Expeditions. ¹⁾		
	Blue.	Fin.	Hump-back	Sei.	Sperm.	Others.	Total of whales.		Shore stations.	Floating factories.	Catchers.
1969	—	—	—	—	145	—	145	3,999	—	—	—
1970	—	—	—	—	205	—	205	5,432	—	—	—

¹⁾ Several small shore stations. Whaling is carried on with rowing boats, and the whales are towed to shore by gasoline launches.

Table k.—Madeira.

Years	Species of whales caught.							Oil production.	Expeditions. ¹⁾		
	Blue.	Fin.	Hump-back.	Sei.	Sperm.	Others.	Total of whales.		Shore stations.	Floating factories.	Catchers.
1969	—	—	—	—	83	—	83	1,365	—	—	—
1970	—	—	—	—	44	—	44	861	—	—	—

¹⁾ Several small shore stations. Whaling is carried on with rowing boats, and the whales are towed to shore by gasoline launches.

Table I.—Spain.

Years.	Species of whales caught.							Oil production.	Expeditions.		
	Blue.	Fin.	Hump-back.	Sei.	Sperm.	Others.	Total of whales.		Shore stations.	Floating factories.	Catchers.
1969	-	-	-	-	193	¹⁾ 122	315	Barrels. ²⁾ 8,740	3	-	3
1970	-	-	-	-	261	¹⁾ 152	413	²⁾ 11,300	3	-	3

¹⁾ Baleen whales. No specification. ²⁾ Calculated.

Table m.—South Atlantic Ocean. (North of 40° South Lat.)

Catch by floating factories on voyage to and from the Antarctic whaling grounds.

1969	-	-	-	-	907	-	907	26,847	-	¹⁾ (2)	¹⁾ -
1970	-	-	-	²⁾	978	-	980	29,956	-	¹⁾ (3)	¹⁾ -

¹⁾ The matériel is included in the Antarctic statistics. ²⁾ Bryde-whales.

Table n.—Africa.

Grounds.	Years.	Species of whales caught.							Oil production.	Expeditions.			
		Blue.	Fin.	Hump-back.	Sei.	Sperm.	Others.	Total of whales.		Shore stations.	Floating factories.	Catchers.	
<i>Natal.</i>	1969	-	150	-	40	1,885	¹⁾	3 2,078	Barrels. 50,657	1	-	7	
	1970	-	47	-	8	1,824	¹⁾	1 1,880	45,002	1	-	7	

¹⁾ Bryde-whales.

Table o.—Pacific North.

(Exclusive Japan, Bering Sea, and Kuril Islands.)

Grounds.	Years.	Species of whales caught.							Oil production.	Expeditions.			
		Blue.	Fin.	Hump-back.	Sei.	Sperm.	Others.	Total of whales.		Shore stations.	Floating factories.	Catchers.	
<i>California.</i>	1969	-	31	-	10	68	¹⁾ 74	183	Barrels. 4,533	1	-	3	
	1970	-	5	-	4	64	-	73	1,724	1	-	3	

¹⁾ Grey-whales.

Table p.—Japan.

Years.	Species of whales caught.							Oil production.	Expeditions.		
	Blue.	Fin.	Hump-back.	Sei.	Sperm.	Others.	Total of whales.		Shore stations.	Floating factories.	Catchers.
1969	—	76	—	466	3,668	1) 89	4,299	Barrels. 87,124	7	—	14
1970	—	77	—	484	3,484	1) 73	4,118	74,273	7	—	12

1) Bryde-whales.

Table q.—North Pacific Ocean and Bering Sea. — Japan.

1969	—	576	—	3,591	3,000	—	7,167	Barrels. 174,900	—	3	27
1970	—	518	—	3,235	2,700	—	6,453	181,159	—	3	27

Table r.—North Pacific Ocean and Bering Sea — U.S.S.R.

Years.	Species of whales caught.							Oil production.	Expeditions.		
	Blue.	Fin.	Hump-back.	Sei.	Sperm.	Others.	Total of whales.		Shore stations.	Floating factories.	Catchers.
1969	—	593	—	1,091	8,211	—	9,895	Barrels. 322,436	—	3	31
1970	—	412	—	782	8,585	1)66	9,845	308,518	—	2	30

1) Bryde-whale.

Table s.—Brazil.

Years.	Species of whales caught.							Oil production.	Expeditions.		
	Blue.	Fin.	Hump-back.	Sei.	Sperm.	Others.	Total of whales.		Shore stations.	Floating factories.	Catchers.
1969	—	—	—	62	75	—	137	Barrels 5,046	1	—	1
1970	—	—	—	26	76	—	102	5,592	1	—	1

Table t.—Peru.

1969	—	74	—	784	1,447	—	2,305	Barrels. 46,978	1	—	5
1970	—	85	—	414	1,436	—	1,935	40,245	1	—	4

Table u.—Chile.

Years.	Species of whales caught.							Oil production. Barrels.	Expeditions.		
	Blue.	Fin.	Hump-back.	Sci.	Sperm.	Others.	Total of whales.		Shore stations-	Floating factories-	Catchers.
1970	-	-	-	103	-	-	103	¹⁾ 1,290	1	-	3

¹⁾ Calculated.

Table v.—South Pacific Ocean. (North of 40° South Lat.)¹⁾

1970	-	-	-	-	696	-	696	19,407	-	²⁾ (2)	²⁾ -
------	---	---	---	---	-----	---	-----	--------	---	-------------------	-----------------

¹⁾ Catch by fl. factories outside the Antarctic grounds. ²⁾ Incl. in the Antarctic statistics.

Table w.—Indian Ocean. (North of 40° South Lat.)¹⁾

1969	-	-	-	-	955	-	955	28,519	-	²⁾ (5)	²⁾ -
1970	5	-	-	-	1,449	³⁾ 2	1,456	40,168	-	²⁾ (6)	²⁾ -

¹⁾ Catch by fl. factories outside the Antarctic grounds. ²⁾ Incl. in the Antarctic statistics. ³⁾ Bryde-whale

Table x.—Australia.

1969	-	-	-	-	679	-	679	27,045	1	-	3
1970	-	-	-	-	799	-	799	33,307	1	-	3

Table Z¹. — Production of by-products in the Antarctic and on other whaling grounds.

	Whale meal, bone meal	Whale liver	Liveroil	Whale meat, blubber, ventral grooves	Whale solubles	Other products
	L. tons	L. tons	L. tons	L. tons	L. tons	L. tons
1968-69 Total	49,705	1,964	21	159,021	5,934	24,140
1969-70 »	45,183	1,887	10	163,458	8,438	24,117
<i>Summary by grounds</i>						
Antarctic	13,745	1,626	³⁾	85,512	1,968	13,852
<i>Africa:—</i>						
Natal	6,659	—	—	836	—	128
Brazil	383	—	—	1,887	—	1
<i>North Atlantic and Arctic:—</i>						
Azores	36	—	—	46	—	13
Madeira	36	—	—	25	—	—
Spain ⁴⁾	—	—	—	—	—	—
Norway	135	—	—	572	—	—
Iceland	1,781	—	—	2,534	—	126
Newfoundland	—	48	—	5,191	—	37
Nova Scotia	446	39	—	2,813	—	—
Pelagic	—	—	—	300	—	—
<i>North Pacific:—</i>						
California	296	—	—	216	—	—
<i>North Pacific Ocean, pelagic:</i>						
Japan	1,423	174	10	36,178	3,957	7,696
U.S.S.R.	11,552	—	⁵⁾	8,124	—	356
Japan, coastal	4,967	—	—	14,868	—	1,908
Peru	2,366	—	—	4,031	—	—
Australia	1,358	—	—	—	2,513	—
<i>South Atlantic Ocean:—</i>						
Pelagic	—	—	—	325	—	—
Total	45,183	1,887	10	163,458	8,438	24,117

¹⁾ 928,000 mill. units of Vitamin A were produced. ²⁾ 8,709,000 mill. units of Vitamin A were produced. ³⁾ 1,129,000 mill. units of Vitamin A were produced. ⁴⁾ No information received. ⁵⁾ 10,217,000 mill. units of Vitamin A were produced.

Table Z.² — Catch of small whales by species and whaling grounds.

Years countries	Species of whales caught						
	Minke- whales	Bottle- noses	Pilot whales	Killer whales	White- whales	Baird's beaked whales	Others or unspecified whales
1968-69	3,459	486	1,783	248	1,126	138	1,604
1969-70	3,616	535	738	276	72	113	90
1969-70.							
South Afrika	171	—	—	—	—	—	—
Norway	2,308	535	43	257	—	—	—
Faroe Islands	—	—	388	—	—	—	60
Greenland	—	—	—	—	—	—	—
Canada	86	—	155	—	72	—	—
Japan	320	—	152	12	—	113	29
Brazil	701	—	—	—	—	—	—
U.S.S.R.	30	—	—	7	—	—	1
Total	3,616	535	738	276	72	113	90

¹⁾ No information.

Table Z³.—Catch of Minke-whales (*Balaenoptera Acutorostrata*) 1969—1970, by months and whaling grounds.

Grounds	Year	Months											Total	
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.		Des.
Norway:—														
Total	1969	—	—	17	73	583	1,246	106	363	3	—	—	—	2,391
	1970	—	—	3	85	695	916	200	372	36	—	—	1	2,308
Of which:														
Coastal districts ¹⁾ ..	1969	—	—	17	19	271	457	25	75	—	—	—	—	864
	1970	—	—	3	63	151	361	67	94	4	—	—	—	743
Barents Sea, Spitzbergen and Bear Island ²⁾ ..	1969	—	—	—	19	215	559	1	18	—	—	—	—	812
	1970	—	—	—	2	471	391	4	16	—	—	—	—	884
Shetland, Iceland, Greenland, Jan Mayen ¹⁾ ...	1969	—	—	—	35	97	230	80	270	3	—	—	—	715
	1970	—	—	—	20	73	164	129	262	32	—	—	—	680
Antarctic	1969/70	—	—	—	—	—	—	—	—	—	—	—	1	1
Denmark:—														
Faroe Islands	1969	—	—	—	—	—	—	—	—	—	—	—	—	—
	1970	—	—	—	—	—	—	—	—	—	—	—	—	—
Greenland	1970 ³⁾	—	—	—	—	—	—	—	—	—	—	—	—	—
Canada:—														
Newfoundland ...	1969	—	—	—	—	3	26	19	1	1	—	—	—	50
	1970	—	—	—	—	26	45	15	—	—	—	—	—	86
Brit. Columbia ...	1969	—	—	—	—	—	—	—	—	—	—	—	—	—
	1970	—	—	—	—	—	—	—	—	—	—	—	—	—
Japan:—														
Coastal districts ..	1969	—	—	2	32	66	61	52	13	4	—	—	—	230
	1970	—	—	6	51	146	73	29	8	5	2	—	—	320
Pacific, pelagic ...	1970	—	—	—	—	—	1	1	8	—	—	—	—	10
Antarctic	1968/69	41	—	1	—	—	—	—	—	—	—	—	—	42
	1969/70	—	—	—	—	—	—	—	—	—	—	—	—	—
Brazil	1969	—	—	—	—	—	6	49	88	137	150	153	34	617
	1970	—	—	—	—	—	8	99	135	154	148	136	21	701
Africa:—														
Natal	1969	—	—	—	12	19	31	13	21	16	—	—	—	112
	1970	—	—	—	12	25	9	19	28	78	—	—	—	171
U.S.S.R.:—														
Antarctic	1968/69	14	3	—	—	—	—	—	—	—	—	—	—	17
	1969/70	6	8	12	—	—	—	—	—	—	—	4	—	30

¹⁾ Catching period permitted: March 15th—June 30th and July 22th—September 14th, both days included. ²⁾ Catching period permitted: March 15th—June 30th, both days included. ³⁾ No information.

Table Z⁴. — Catch of Bottlenoses (*Hyperoodon Rostrata*) 1969—1970, by months and whaling grounds.

Grounds	Year	Months												Total
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Des.	
Norway:—														
Total	1969	—	—	—	81	139	226	29	8	2	—	—	—	485
	1970	—	—	—	48	128	358	—	1	—	—	—	—	535
Of which:														
Coastal districts ¹⁾ ..	1969	—	—	—	—	4	4	—	—	—	—	—	—	8
	1970	—	—	—	1	—	4	—	1	—	—	—	—	6
Barents Sea, Spitzbergen and Bear Island ²⁾ ...	1969	—	—	—	65	67	16	—	2	—	—	—	—	150
	1970	—	—	—	43	38	—	—	—	—	—	—	—	81
Shetland, Iceland, Greenland, Jan Mayen ¹⁾ ...	1969	—	—	—	16	68	206	29	6	2	—	—	—	327
	1970	—	—	—	4	90	354	—	—	—	—	—	—	448
Canada:—														
Nova Scotia.....	1969	—	—	—	—	—	—	—	—	—	—	—	—	—
	1970	—	—	—	—	—	—	—	—	—	—	—	—	—
U.S.S.R.:—														
Antarctic	1968/69	1	—	—	—	—	—	—	—	—	—	—	—	1
	1969/70	—	—	—	—	—	—	—	—	—	—	—	—	—

¹⁾ ²⁾ See notes 1 and 2 page 21.

Table Z⁵. — Catch of Pilot-whales (*Globicephala Melaena*) 1969—1970, by months and whaling grounds.

Grounds	Year	Months												Total
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Des.	
Norway:—														
Total	1969	—	—	—	—	2	6	1	18	—	—	—	—	27
	1970	—	—	—	—	—	4	1	38	—	—	—	—	43
Of which:														
Coastal districts ¹⁾ ..	1969	—	—	—	—	—	—	—	3	—	—	—	—	3
	1970	—	—	—	—	—	4	—	38	—	—	—	—	42
Shetland, Iceland, Greenland, Jan Mayen ¹⁾ ...	1969	—	—	—	—	2	6	1	15	—	—	—	—	24
	1970	—	—	—	—	—	—	1	—	—	—	—	—	1
Denmark:—														
Faroe Islands	1969	121	—	24	456	—	71	86	172	292	124	—	49	1,395
	1970	—	—	—	198	—	—	—	101	—	—	89	—	388
Greenland	1969	2	—	3	16	23	41	38	51	31	24	1	1	231
	1970 ²⁾	—	—	—	—	—	—	—	—	—	—	—	—	—
Canada:—														
Newfoundland ...	1969	—	—	—	—	—	—	—	—	—	—	—	—	—
	1970	—	—	—	—	—	—	155	—	—	—	—	—	155
Japan:—														
Coastal districts ..	1969	6	4	9	8	30	15	7	—	2	—	24	25	130
	1970	14	21	5	14	24	28	16	—	—	18	12	—	152

¹⁾ See note 1 page 21. ²⁾ No information.

Table Z⁶. — Catch of Killer-whales (*Orcinus orca*) 1969—1970, by months and whaling grounds.

Grounds	Year	Months												Total
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Des.	
Norway:—														
Total	1969	—	—	167	5	19	6	—	28	6	—	—	—	231
	1970	5	137	66	12	16	8	3	1	6	3	—	—	257
Of which:														
Coastal districts ¹⁾ ..	1969	—	—	167	4	9	3	—	6	—	—	—	—	189
	1970	5	135	66	9	14	2	1	—	—	—	—	—	232
Barents Sea, Spitzbergen and Bear Island ²⁾ ..	1969	—	—	—	1	—	2	—	—	—	—	—	—	3
	1970	—	—	—	—	2	—	—	—	—	—	—	—	2
Shetland, Iseland, Greenland, Jan Mayen ¹⁾ ...	1969	—	—	—	—	10	1	—	22	6	—	—	—	39
	1970	—	—	—	3	—	6	2	1	—	—	—	—	12
South Atlantic ...	1970	—	—	—	—	—	—	—	—	6	3	—	—	9
Antarctic	1968/69	—	—	—	—	—	—	—	—	—	—	—	—	—
	1969/70	—	2	—	—	—	—	—	—	—	—	—	—	2
Denmark:—														
Greenland	1969	—	—	—	—	—	—	—	—	—	1	—	—	1
	1970 ³⁾	—	—	—	—	—	—	—	—	—	—	—	—	—
Japan:—														
Coastal districts ..	1969	—	2	2	1	—	—	—	—	5	3	—	3	16
	1970	—	2	—	—	—	—	—	—	8	—	2	—	12
U.S.A.:—														
California	1969	—	—	—	—	—	—	—	—	—	—	—	—	—
	1970	—	—	—	—	—	—	—	—	—	—	—	—	—
Peru	1969	—	—	—	—	—	—	—	—	—	—	—	—	—
	1970	—	—	—	—	—	—	—	—	—	—	—	—	—
U.S.S.R.:—														
Antarctic	1968/69	—	—	—	—	—	—	—	—	—	—	—	—	—
	1969/70	—	—	5	2	—	—	—	—	—	—	—	—	7

¹⁾, ²⁾ See notes 1 and 2 page 21. ³⁾ No information.

Table Z⁷. — Catch of White-whales, (*Delphinapterus leucas*) 1969—1970, by months and whaling grounds.

Grounds	Year	Months												Total
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Des.	
Canada:—														
Hudson Bay	1969	—	—	—	—	—	—	3	111	38	5	—	—	¹⁾ 178
	1970	—	—	—	—	—	—	—	—	—	—	—	—	72
Northwest Territories	1969	—	—	—	—	—	—	—	—	—	—	—	—	—
	1970	—	—	—	—	—	—	—	—	—	—	—	—	—
Denmark:—														
Greenland	1969	101	219	81	156	194	35	1	3	2	107	26	23	948

¹⁾ Incl. 21 White-whales, without specification for months. ²⁾ No information.

Table Z⁸. — Catch of Baird's beaked whales (*Berardius Bairdii*) 1969—1970, by months and whaling grounds.

Grounds	Year	Months												Total
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Des.	
U.S.A.:—														
California	1969	—	—	—	—	—	—	—	—	—	—	—	—	—
	1970	—	—	—	—	—	—	—	—	—	—	—	—	—
Canada:—														
British Columbia	1969	—	—	—	—	—	—	—	—	—	—	—	—	—
	1970	—	—	—	—	—	—	—	—	—	—	—	—	—
Japan:—														
Coastal districts	1969	—	—	—	—	—	14	22	30	33	21	15	3	138
	1970	3	—	—	—	—	4	37	32	18	18	1	—	113

Table Z⁹. — Catch of others or unspecified small whales 1969—1970, by months and whaling grounds.

Grounds	Year	Months												Total
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Des.	
Denmark:—														
Faroe Islands	1969	—	—	—	—	—	—	—	—	—	—	—	—	—
	1970	—	—	—	—	—	—	—	—	60	—	—	—	60
Greenland	1969	79	23	41	40	106	332	259	227	328	72	40	1	1,548
	1970 ¹⁾	—	—	—	—	—	—	—	—	—	—	—	—	—
Japan:—														
Coastal districts	1969	39	—	1	—	1	1	—	3	2	4	4	1	56
	1970	—	2	—	—	6	—	—	5	11	2	3	—	29
U.S.S.R.:—														
Antarctic	1969/70	1	—	—	—	—	—	—	—	—	—	—	—	1

¹⁾ No information.

TABLES

Antarctic season 1969/70 and summer 1970.

Table No. 1 — Whaling in 1969/70 and summer 1970.

Geographical areas	Species of whales caught						Oil production Barrels ¹⁾	Expeditions		
	Fin	Sei	Bryde	Sperm	Others	Total		Shore sta- tions	Float- ing fact.	Catch- ers
Antarctic, pelagic	3,002	5,857	—	3,090	—	11,949	393,291	—	6	85
Africa:—										
Natal	47	8	1	1,824	—	1,880	45,002	1	—	7
Brazil	—	26	—	76	—	102	5,592	1	—	1
North Atlantic and Arctic:—										
Azores	—	—	—	205	—	205	5,432	—	—	—
Madeira	—	—	—	44	—	44	861	—	—	—
Spain	—	—	—	261	²⁾ 152	413	³⁾ 11,300	3	—	3
Norway	44	—	—	51	—	95	4,327	1	—	2
Iceland	272	44	—	61	—	377	14,647	1	—	4
Newfoundland	406	1	—	2	⁴⁾ 14	423	11,810	2	—	3
Nova Scotia	170	93	—	25	⁴⁾ 1	289	7,168	1	—	2
Pelagic	19	—	—	—	—	19	300	—	—	1
Pacific North:—										
California	5	4	—	64	—	73	1,724	1	—	3
North Pacific and Bering Sea, pelagic..	930	4,017	66	11,285	—	16,298	489,677	—	5	57
Japan	77	484	73	3,484	—	4,118	74,273	7	—	12
Chile	—	103	—	—	—	⁵⁾ 103	³⁾ 1,290	1	—	3
Peru	85	414	—	1,436	—	1,935	40,245	1	—	4
Australia	—	—	—	799	—	799	33,307	1	—	3
Indian Ocean, pelagic ⁶⁾	—	—	2	1,449	⁸⁾ 5	1,456	40,168	—	—	—
South Atlantic Ocean, pelagic ⁷⁾	—	—	2	978	—	980	29,956	—	—	—
South Pacific Ocean, pelagic ⁶⁾	—	—	—	696	—	696	19,407	—	—	—
Total	5,057	11,051	144	25,830	172	42,254	1,229,777	21	11	190

¹⁾ Barrels=170 kg. ²⁾ Baleen whales, not specified. ³⁾ Calculated. ⁴⁾ Humpback-whales. ⁵⁾ Catch in the period October 1968—May 1970. ⁶⁾ Floating factories on voyage to and from the Antarctic. ⁷⁾ Floating factories on voyage to and from the Antarctic and one combined floating factory catcher. ⁸⁾ Pigmy Blue-whales.

Table No. 2 — Whaling of Japan in 1969/70 and summer 1970.

Geographical areas	Species of whales caught						Oil production Barrels	Expeditions		
	Fin	Sei	Bryde	Sperm	Others	Total		Shore sta- tions	Floa- ting fact.	Catch- ers
Antarctic, pelagic	1,821	3,495	—	18	—	5,334	160,681	—	3	38
North Pacific Ocean and Bering Sea, pelagic..	518	3,235	—	2,700	—	6,453	181,159	—	3	27
Japan	77	484	73	3,484	—	4,118	74,273	7	—	12
Indian Ocean, pelagic ¹⁾	—	—	—	612	—	612	14,388	—	—	—
South Pacific Ocean, pelagic ¹⁾	—	—	—	530	—	530	14,118	—	—	—
Total	2,416	7,214	73	7,344	—	17,047	444,619	7	6	77

¹⁾ Floating Factories on voyage to and from Antarctic.

Table No. 3 — Whaling of U.S.S.R. in 1969/70 and summer 1970.

Antarctic, pelagic	1,177	2,340	—	3,066	—	6,583	232,158	—	3	46
North Pacific Ocean and Bering Sea, pelagic..	412	782	66	8,585	—	9,845	308,518	—	2	30
Indian Ocean, pelagic ²⁾	—	—	2	837	¹⁾ 5	844	25,780	—	—	—
South Atlantic Ocean, pelagic ²⁾	—	—	2	896	—	898	28,200	—	—	—
South Pacific Ocean, pelagic ²⁾	—	—	—	166	—	166	5,289	—	—	—
Total	1,589	3,122	70	13,550	5	18,336	599,945	—	5	76

¹⁾ Pigmy Blue-whales. ²⁾ Floating factories on voyage to and from Antarctic.

Table No. 4. Whaling results for the various countries in 1969/70 and summer 1970.

U.S.S.R.	1,589	3,122	70	13,550	¹⁾ 5	18,336	599,945	—	5	76
Japan	2,416	7,214	73	7,344	—	17,047	444,619	7	6	77
South Africa	47	8	1	1,824	—	1,880	²⁾ 45,002	1	—	7
Peru	85	414	—	1,436	—	1,935	40,245	1	—	4
Australia	—	—	—	799	—	799	33,307	1	—	3
Canada	576	94	—	27	15	712	18,978	3	—	5
Iceland	272	44	—	61	—	377	14,647	1	—	4
Spain	—	—	—	261	³⁾ 152	413	⁴⁾ 11,300	3	—	3
Portugal	—	—	—	249	—	249	6,293	—	—	—
Brazil	—	26	—	76	—	102	5,592	1	—	1
U.S.A.	5	4	—	64	—	73	1,724	1	—	3
Norway	67	22	—	139	—	228	6,835	1	—	⁵⁾ 4
Chile	—	103	—	—	—	⁶⁾ 103	1,290	1	—	3
Total	5,057	11,051	144	25,830	172	42,254	1,229,777	21	11	190

¹⁾ Pigmy Blue-whales. ²⁾ Inclusive oil from 171 Minke-whales. ³⁾ Baleen-whales not specified. ⁴⁾ Calculated. ⁵⁾ 2 catchers and one combined floating factory/catcher used in Antarctic 1969/70 and in South Atlantic and in North Atlantic in 1970
⁶⁾ Catch in the period October 1968—May 1970.

Table No. 5 — Average size of whales caught in the summer 1970.

Geographical areas Number of whales measured	Average size		
	Males	Females	Total animals
<u>A. Fin-whales.</u>			
<i>Africa:—</i>			
Natal	59.57	62.00	60.55
Males 28 } Total 47			
Females 19 }			
<i>North Atlantic and Arctic:—</i>			
Norway	60.65	64.63	63.09
Males 17 } Total 44			
Females 27 }			
Iceland	58.58	62.42	60.86
Males 141 } Total 272			
Females 131 }			
Newfoundland	58.03	60.61	59.30
Males 207 } Total 407			
Females 200 }			
Nova Scotia	54.98	58.69	56.89
Males 82 } Total 169			
Females 87 }			
<i>Pacific North:—</i>			
California	60.33	57.50	59.20
Males 3 } Total 5			
Females 2 }			
North Pacific Ocean and Bering Sea, pelagic:			
Japan	61.79	63.26	62.48
Males 273 } Total 513			
Females 240 }			
U.S.S.R.	60.88	60.91	60.89
Males 186 } Total 411			
Females 225 }			
Japan, coastal	58.29	61.33	60.10
Males 31 } Total 77			
Females 46 }			
<u>B. Sei-whales.</u>			
<i>Africa:—</i>			
Natal	44.00	45.20	44.75
Males 3 } Total 8			
Females 5 }			
<i>North Atlantic and Arctic:—</i>			
Brazil	48.82	50.60	49.85
Males 11 } Total 26			
Females 15 }			
Iceland	43.00	45.77	44.95
Males 13 } Total 44			
Females 31 }			

Table No. 5 (continued).

Geographical areas Number of whales measured	Average size		
	Males	Females	Total animals
	Engl. feet	Engl. feet	Engl. feet
Nova Scotia.....	44.05	45.26	44.55
Males 55 } Total 93			
Females 38 }			
<i>Pacific North:—</i>			
California.....	45.50	44.00	44.75
Males 2 } Total 4			
Females 2 }			
North Pacific Ocean and Bering Sea, pelagic:			
Japan.....	44.47	45.92	45.15
Males 1,711 } Total 3,234			
Females 1,523 }			
U.S.S.R.....	44.62	44.77	44.71
Males 325 } Total 781			
Females 456 }			
Japan, coastal.....	42.62	43.24	42.95
Males 225 } Total 484			
Females 259 }			
<u>C. Sperm-whales.</u>			
<i>Africa:—</i>			
Natal.....	37.95	36.11	37.10
Males 983 } Total 1,824			
Females 841 }			
<i>North Atlantic and Arctic:—</i>			
Norway.....	49.59	—	49.59
Males 51			
Brazil.....	39.63	35.54	37.16
Males 30 } Total 76			
Females 46 }			
Iceland.....	49.85	—	49.85
Males 61			
<i>Pacific North:—</i>			
California.....	40.95	35.57	38.74
Males 20 } Total 34			
Females 14 }			
North Pacific Ocean and Bering Sea, pelagic:			
Japan.....	45.55	38.53	44.65
Males 2,353 } Total 2,700			
Females 347 }			
U.S.S.R.....	41.96	37.07	41.20
Males 7,236 } Total 8,567			
Females 1,331 }			
Japan, coastal.....	38.06	35.75	36.82
Males 1,613 } Total 3,484			
Females 1,871 }			

Table No. 5 (continued).

Geographical areas Number of whales measured	Average size		
	Males	Females	Total animals
	Engl. feet	Engl. feet	Engl. feet
<i>Australia</i>	43.84	35.13	43.59
Males 776 } Total 799 Females 23 }			
<i>South Atlantic Ocean</i>	41.95	34.00	41.50
Males 923 } Total 978 Females 55 }			
<i>Indian Ocean</i>	41.89	37.60	40.59
Males 1,011 } Total 1,448 Females 437 }			
<i>South Pacific Ocean</i>	43.44	38.66	40.99
Males 339 } Total 696 Females 357 }			

Table No. 6.—Whales caught in the summer season 1970,
by species, sex and size.

1. Nat. l.
Fin-whales.

Engl. feet.	Number of		Total animals.	Engl. feet.	Number of		Total animals.
	males.	females.			males.	females.	
51	1	—	1	67	1	1	2
52	1	1	2	68	2	—	2
53	4	—	4	69	1	—	1
54	1	1	2	70	1	2	3
55	2	1	3	75	—	1	1
56	2	—	2				
57	1	—	1	Sum	28	19	47
58	2	1	3				
59	1	2	3				
60	1	1	2				
61	1	2	3				
62	2	3	5				
63	1	1	2				
64	1	2	3				
65	1	—	1				
66	1	—	1				

Average size	{	Males:	59.57 feet
		Females:	62.00 "
		Total animals:	60.55 "

Per cent	{	Males:	59.57
		Females:	40.43

Table No. 6 (continued).

Sei-whales.

Engl. feet.	Number of		Total animals.	
	males.	females.		
41	1	1	2	Average size { Males: 44.00 feet Females: 45.20 " Total animals: 44.75 "
43	1	1	2	
45	-	1	1	
48	1	1	2	Per cent { Males: 37.50 Females: 62.50
49	-	1	1	
Sum	3	5	8	

Sperm-whales.

Engl. feet.	Number of		Total animals.	Engl. feet.	Number of		Total animals.
	males.	females.			males.	females.	
29	-	1	1	46	42	-	42
30	1	2	3	47	30	-	30
31	2	17	19	48	20	-	20
32	60	175	235	49	18	-	18
33	78	263	341	50	13	-	13
34	86	212	298	51	11	-	11
35	66	121	187	52	7	-	7
36	54	38	92	Sum	983	841	1,824
37	38	9	47	Average size { Males: 37.95 feet Females: 36.11 " Total animals: 37.10 "			
38	43	3	46				
39	43	-	43	Per cent { Males: 53.89 Females: 46.11			
40	40	-	40				
41	58	-	58				
42	64	-	64				
43	90	-	90				
44	63	-	63				
45	56	-	56				

Table No. 6 (continued).

Minke-whales.

Engl. feet.	Number of		Total animals.	Engl. feet.	Number of		Total animals.
	males.	females.			males.	females.	
14	—	2	2	31	—	4	4
20	2	—	2	32	—	1	1
21	4	1	5	33	—	1	1
22	3	2	5	35	—	1	1
23	3	2	5	Sum	97	74	171
24	6	—	6	Average size { Males: 26.28 feet Females: 27.31 " Total animals: 26.73 "			
25	7	9	16				
26	15	8	23				
27	29	11	40				
28	15	10	25				
29	11	12	23				
30	2	10	12				
				Per cent { Males: 56.73 Females: 43.27			

2. Norway.

Fin-whales.

Engl. feet.	Number of		Total animals.	Engl. feet.	Number of		Total animals.
	males.	females.			males.	females.	
52	—	1	1	69	—	3	3
54	1	1	2	70	—	1	1
57	—	1	1	72	—	1	1
58	2	—	2	74	—	1	1
59	4	—	4	Sum	17	27	44
60	2	2	4	Average size { Males: 60.65 feet Females: 64.63 " Total animals: 63.09 "			
61	3	2	5				
62	1	1	2				
63	1	3	4				
64	1	1	2				
65	1	2	3				
66	—	1	1				
67	—	2	2				
68	1	4	5	Per cent { Males: 38.64 Females: 61.36			

Sperm-whales.

Engl. feet.	Number of		Total animals.	Engl. feet.	Number of		Total animals.
	males.	females.			males.	females.	
44	1	—	1	54	5	—	5
45	2	—	2	57	1	—	1
46	5	—	5	Sum	51	—	51
47	2	—	2	Average size males: 49.59 feet.			
48	11	—	11				
49	6	—	6				
50	4	—	4				
51	9	—	9				
52	2	—	2				
53	3	—	3				

Table No. 6 (continued).

3. Brazil.

Sei-whales.

Engl. feet.	Number of		Total animals.	Engl. feet.	Number of		Total animals.
	males.	females.			males.	females.	
42	1	—	1	56	—	1	1
43	—	2	2	58	—	1	1
45	1	—	1	Sum	11	15	26
48	—	2	2	Average size { Males: 48.82 feet Females: 50.60 " Total animals: 49.85 " Per cent { Males: 42.31 Females: 57.69			
49	3	—	3				
50	3	3	6				
51	3	3	6				
52	—	1	1				
53	—	1	1				
55	—	1	1				

Sperm-whales.

35	10	26	36	Average size { Males: 39.63 feet Females: 35.54 " Total animals: 37.16 " Per cent { Males: 39.47 Females: 60.53
36	6	19	25	
38	2	—	2	
40	4	—	4	
41	1	1	2	
42	1	—	1	
45	1	—	1	
46	1	—	1	
48	1	—	1	
53	1	—	1	
55	1	—	1	
57	1	—	1	
Sum	30	46	76	

4. Iceland.

Fin-whales.

Engl. feet.	Number of		Total animals.	Engl. feet.	Number of		Total animals.
	males.	females.			males.	females.	
48	1	—	1	66	1	8	9
50	1	—	1	67	3	10	13
51	2	1	3	68	1	11	12
52	2	1	3	69	—	1	1
53	6	1	7	70	—	3	3
54	4	7	11	71	—	2	2
55	5	2	7	72	—	1	1
56	8	5	13	73	—	1	1
57	11	6	17	Sum	141	131	272
58	10	4	14	Average size { Males: 58.58 feet Females: 62.42 " Total animals: 60.86 " Per cent { Males: 51.84 Females: 48.16			
59	15	8	23				
60	18	10	28				
61	13	9	22				
62	18	8	26				
63	13	9	22				
64	4	12	16				
65	5	11	16				

Table No. 6 (continued).

Sei-whales.

Engl. feet.	Number of		Total animals.	Engl. feet	Number of		Total animals.
	males.	females.			males.	females.	
36	—	1	1	49	—	5	5
38	1	1	2	50	—	1	1
39	—	1	1	52	—	1	1
40	2	—	2	Sum	13	31	44
41	1	—	1	Average size { Males: 43.00 feet Females: 45.77 " Total animals: 44.95 " Per cent { Males: 29.55 Females: 70.45			
42	—	1	1				
43	3	1	4				
44	3	4	7				
45	1	3	4				
46	1	5	6				
47	—	3	3				
48	1	4	5				

Sperm-whales.

Engl. feet.	Number of		Total animals.	Engl. feet.	Number of		Total animals.
	males.	females.			males.	females.	
42	2	—	2	53	5	—	5
44	2	—	2	54	3	—	3
45	5	—	5	55	2	—	2
46	2	—	2	Sum	61	—	61
47	3	—	3	Average size males: 49.85 feet.			
48	3	—	3				
49	4	—	4				
50	5	—	5				
51	16	—	16				
52	9	—	9				

5. Newfoundland.

Fin-whales.

Engl. feet.	Number of		Total animals.	Engl. feet.	Number of		Total animals.
	males.	females.			males.	females.	
47	—	1	1	66	—	5	5
49	2	—	2	67	—	3	3
50	2	5	7	68	—	9	9
51	7	3	10	69	—	2	2
52	3	5	8	70	—	1	1
53	5	5	10	Sum	207	200	407
54	7	10	17	Average size { Males: 58.03 feet Females: 60.61 " Total animals: 59.30 " Per cent { Males: 50.86 Females: 49.14			
55	17	6	23				
56	11	3	14				
57	21	7	28				
58	26	9	35				
59	35	9	44				
60	30	23	53				
61	19	17	36				
62	14	18	32				
63	3	21	24				
64	3	20	23				
65	2	18	20				

Table No. 6 (continued).

6. Nova Scotia.

Fin-whales.

Engl. feet.	Number of		Total animals.	Engl. feet.	Number of		Total animals.
	males.	females.			males.	females.	
47	1	—	1	63	—	5	5
48	1	—	1	64	—	5	5
49	2	2	4	65	—	1	1
50	11	4	15	66	—	1	1
51	4	4	8	67	—	2	2
52	2	3	5	Sum	82	87	169
53	4	1	5	Average size { Males: 54.98 feet Females: 58.69 " Total animals: 56.89 " Per cent { Males: 48.52 Females: 51.48			
54	4	—	4				
55	11	3	14				
56	15	5	20				
57	9	7	16				
58	4	7	11				
59	6	5	11				
60	4	11	15				
61	3	14	17				
62	1	7	8				

Sei-whales.

Engl. feet.	Number of		Total animals.	Engl. feet.	Number of		Total animals.
	males.	females.			males.	females.	
35	—	1	1	48	—	3	3
36	1	—	1	49	—	3	3
37	1	1	2	50	1	1	2
38	1	—	1	Sum	55	38	93
39	1	2	3	Average size { Males: 44.05 feet Females: 45.26 " Total animals: 44.55 " Per cent { Males: 59.14 Females: 40.86			
40	1	—	1				
41	1	—	1				
42	3	1	4				
43	6	3	9				
44	15	3	18				
45	9	4	13				
46	12	6	18				
47	3	10	13				

7. California.

Fin-whales.

Engl. feet.	Number of		Total animals.	Average size {	Males: 60.33 feet
	males.	females.			
50	—	1	1	Females: 57.50 " Total animals: 59.20 "	
56	1	—	1		
62	1	—	1		
63	1	—	1	Per cent { Males: 60.00 Females: 40.00	
65	—	1	1		
Sum	3	2	5		

Table No. 6 (continued).

Sei-whales.

Engl. feet.	Number of		Total animals.	Average size { Males: 45.50 feet Females: 44.00 " Total animals: 44.75 " Per cent { Males: 50.00 Females: 50.00
	males.	females.		
42	-	1	1	
45	1	-	1	
46	1	1	2	
Sum	2	2	4	

Sperm-whales.

Engl. feet.	Number of		Total animals.	Engl. feet	Number of		Total animals.
	males.	females.			males.	females.	
31	-	1	1	49	1	-	1
35	1	6	7	51	1	-	1
36	4	3	7	53	1	-	1
37	3	3	6	Sum	20	14	34
38	3	1	4	Average size { Males: 40.95 feet Females: 35.57 " Total animals: 38.74 " Per cent { Males: 58.82 Females: 41.18			
41	1	-	1				
43	2	-	2				
44	1	-	1				
45	1	-	1				
46	1	-	1				

In addition the following 30 sperm-whales were taken under special Scientific Permit:

Sperm-whales.

Engl. feet.	Number of		Total animals.	Average size { Males: 38.67 feet Females: 33.67 " Total animals: 35.67 " Per cent { Males: 40.00 Females: 60.00
	males.	females.		
30	-	2	2	
32	-	3	3	
33	-	4	4	
34	-	4	4	
35	1	-	1	
36	2	4	6	
37	4	-	4	
38	2	1	3	
40	1	-	1	
44	1	-	1	
49	1	-	1	
Sum	12	18	30	

Table No. 6 (continued).

8. North Pacific Ocean and Bering Sea, pelagic.

1. Japan.

Fin-whales.

Engl. feet.	Number of		Total animals.	Engl. feet.	Number of		Total animals.
	males.	females.			males.	females.	
55	1	—	1	70	—	5	5
56	2	—	2	71	—	2	2
57	17	18	35	72	—	2	2
58	23	25	48	73	—	1	1
59	25	16	41	Sum	273	240	513
60	23	13	36	Average size { Males: 61.79 feet			
61	34	21	55	{ Females: 63.26 "			
62	34	16	50	{ Total animals: 62.48 "			
63	35	13	48	Per cent { Males: 53.22			
64	25	13	38	{ Females: 46.78			
65	27	22	49				
66	16	20	36				
67	5	19	24				
68	3	19	22				
69	3	15	18				

Sei-whales.

38	1	1	2	51	2	67	69
39	2	4	6	52	—	34	34
40	135	100	235	53	—	9	9
41	117	105	222	54	—	1	1
42	121	89	210	Sum	1,711	1,523	3,234
43	177	122	299	Average size { Males: 44.47 feet			
44	214	120	334	{ Females: 45.92 "			
45	308	111	419	{ Total animals: 45.15 "			
46	300	129	429	Per cent { Males: 52.91			
47	181	156	337	{ Females: 47.09			
48	103	196	299				
49	42	161	203				
50	8	118	126				

Sperm-whales.

36	3	11	14	51	152	—	152
37	7	15	22	52	145	—	145
38	85	168	253	53	41	—	41
39	143	103	246	54	7	—	7
40	149	36	185	55	2	—	2
41	167	9	176	Sum	2,353	347	2,700
42	158	5	163	Average size { Males: 45.55 feet			
43	168	—	168	{ Females: 38.53 "			
44	138	—	138	{ Total animals: 44.65 "			
45	127	—	127	Per cent { Males: 87.15			
46	134	—	134	{ Females: 12.85			
47	131	—	131				
48	161	—	161				
49	209	—	209				
50	226	—	226				

Table No. 6 (continued).

2. U. S. S. R.

Fin-whales.

Engl. feet.	Number of		Total animals.	Engl. feet.	Number of		Total animals.	
	males.	females.			males.	females.		
38	—	1	1	68	10	8	18	
51	—	1	1	69	4	5	9	
53	1	—	1	70	2	5	7	
54	2	2	4	71	1	2	3	
55	6	13	19	72	1	3	4	
56	14	14	28	73	—	3	3	
57	16	23	39	74	—	1	1	
58	21	19	40	Sum	186	225	411	
59	22	28	50	Average size {				Males: 60.88 feet
60	21	30	51	{				Females: 60.91 "
61	13	14	27	{				Total animals: 60.89 "
62	10	12	22	Per cent {				Males: 45.26
63	12	9	21	{				Females: 54.74
64	9	8	17					
65	11	14	25					
66	9	4	13					
67	1	6	7					

Sei-whales.

37	1	2	3	51	9	14	23	
38	1	—	1	52	5	7	12	
39	2	1	3	53	2	4	6	
40	11	22	33	54	1	8	9	
41	39	37	76	55	2	—	2	
42	39	57	96	56	—	1	1	
43	38	67	105	Sum	325	456	781	
44	44	61	105	Average size {				Males: 44.62 feet
45	52	67	119	{				Females: 44.77 "
46	19	24	43	{				Total animals: 44.71 "
47	20	26	46	Per cent {				Males: 41.61
48	14	26	40	{				Females: 58.39
49	15	19	34					
50	11	13	24					

Sperm-whales.

27	—	1	1	46	260	—	260	
29	—	2	2	47	282	—	282	
30	2	10	12	48	331	—	331	
31	4	9	13	49	171	—	171	
32	4	14	18	50	133	—	133	
33	4	26	30	51	94	—	94	
34	8	26	34	52	45	—	45	
35	12	45	57	53	9	—	9	
36	21	74	95	57	—	1	1	
37	459	555	1014	Sum	7.236	1.331	8.567	
38	634	514	1148	Average size {				Males: 41.96 feet
39	892	44	936	{				Females: 37.07 "
40	982	7	989	{				Total animals: 41.20 "
41	882	2	884	Per cent {				Males: 84.46
42	687	—	687	{				Females: 15.54
43	567	1	568					
44	423	—	423					
45	330	—	330					

Table No. 6 (continued).

9. Japan. — Coastal.

Fin-whales.

Engl. feet.	Number of		Total animals.	Engl. feet.	Number of		Total animals.
	males.	females.			males.	females.	
50	1	—	1	65	—	3	3
52	1	—	1	66	—	2	2
53	—	1	1	67	—	2	2
54	—	3	3	68	—	4	4
55	3	3	6				
56	2	3	5	Sum	31	46	77
57	3	—	3				
58	4	1	5				
59	7	1	8	Average size	{	Males: 58.29 feet	
60	2	3	5		{	Females: 61.33 "	
61	4	6	10		{	Total animals: 60.10 "	
62	4	7	11	Per cent	{	Males: 40.26	
63	—	5	5		{	Females: 59.74	
64	—	2	2				

Sei-whales.

35	1	4	5	48	9	16	25
36	7	9	16	49	1	8	9
37	5	4	9	50	1	1	2
38	11	11	22	51	—	5	5
39	17	18	35	Sum	225	259	484
40	12	14	26				
41	22	16	38	Average size	{	Males: 42.62 feet	
42	27	20	47		{	Females: 43.24 "	
43	35	38	73		{	Total animals: 42.95 "	
44	25	22	47	Per cent	{	Males: 46.49	
45	20	31	51		{	Females: 53.51	
46	19	24	43				
47	13	18	31				

Bryde-whales.

35	1	—	3				
36	3	—	3				
37	1	3	4				
38	3	1	4				
39	4	5	9				
40	5	5	10	Average size	{	Males: 40.56 feet	
41	5	7	12		{	Females: 41.19 "	
42	4	2	6		{	Total animals: 40.88 "	
43	6	2	8	Per cent	{	Males: 49.32	
44	2	1	3		{	Females: 50.68	
45	1	5	6				
46	1	4	5				
Sum	36	37	73				

Table No. 6 (continued).

Sperm-whales.

Engl. feet.	Number of		Total animals.	Engl. feet.	Number of		Total animals.
	males.	females.			males.	females.	
29	—	1	1	47	16	—	16
31	1	1	2	48	12	—	12
32	1	1	2	49	8	—	8
33	2	6	8	50	9	—	9
34	1	6	7	51	6	—	6
35	348	937	1,285	52	2	—	2
36	361	577	938	53	5	—	5
37	239	230	469	54	2	—	2
38	145	74	219				
39	117	24	141	Sum	1,613	1,871	3,484
40	96	9	105				
41	72	3	75				
42	47	1	48	Average size	{	Males: 38.06 feet	
43	55	—	55			Females: 35.75 "	
44	25	1	26			Total animals: 36.82 "	
45	24	—	24	Per cent	{	Males: 46.30	
46	19	—	19			Females: 53.70	

10. Australia. Sperm-whales.

32	—	1	1	48	70	—	70
33	1	1	2	49	46	—	46
34	4	5	9	50	36	—	36
35	10	8	18	51	23	—	23
36	22	4	26	52	10	—	10
37	26	3	29	53	2	—	2
38	33	1	34	54	1	—	1
39	55	—	55	Sum	776	23	799
40	60	—	60				
41	42	—	42				
42	52	—	52	Average size	{	Males: 43.84 feet	
43	44	—	44			Females: 35.13 "	
44	52	—	52			Total animals: 43.59 "	
45	63	—	63	Per cent	{	Males: 97.12	
46	68	—	68			Females: 2.88	
47	56	—	56				

11. South Atlantic Ocean. Sperm-whales.

27	—	1	1	46	26	—	26
29	—	2	2	47	30	—	30
30	1	1	2	48	18	—	18
31	2	4	6	49	33	—	33
32	4	6	10	50	28	—	28
33	3	12	15	51	25	—	25
34	6	5	11	52	14	—	14
35	15	7	22	53	2	—	2
36	21	6	27	54	1	—	1
37	12	6	18	55	2	—	2
38	124	5	129	Sum	923	55	978
39	122	—	122				
40	88	—	88				
41	110	—	110	Average size	{	Males: 41.95 feet	
42	74	—	74			Females: 34.00 "	
43	66	—	66			Total animals: 41.50 "	
44	54	—	54	Per cent	{	Males: 94.38	
45	42	—	42			Females: 5.62	

Table No. 6 (continued).

12. Indian Ocean. Sperm-whales.

Engl. feet.	Number of		Total animals.	Engl. feet.	Number of		Total animals.
	males.	females.			males.	females.	
27	1	1	2	45	57	-	57
29	1	2	3	46	46	-	46
30	-	1	1	47	39	-	39
31	1	2	3	48	48	-	48
32	1	8	9	49	34	-	34
33	3	11	14	50	23	-	23
34	4	11	15	51	9	-	9
35	3	10	13	52	10	-	10
36	7	16	23				
37	9	4	13	Sum	1,011	437	1,448
38	181	283	464				
39	165	87	252				
40	105	1	106	Average size	{ Males: 41.89 feet Females: 37.60 " Total animals: 40.59 "		
41	85	-	85	Per cent	{ Males: 69.82 Females: 30.18		
42	57	-	57				
43	68	-	68				
44	54	-	54				

13. South Pacific Ocean. Sperm-whales.

32	-	1	1	49	17	-	17
33	-	1	1	50	12	-	12
35	1	5	6	51	6	-	6
36	-	11	11	52	9	-	9
37	1	11	12	53	2	-	2
38	31	125	156	54	2	-	2
39	34	143	177	55	1	-	1
40	37	38	75				
41	26	14	40	Sum	339	357	696
42	22	6	28				
43	33	2	35	Average size	{ Males: 43.44 feet Females: 38.66 " Total animals: 40.99 "		
44	30	-	30	Per cent	{ Males: 48.71 Females: 51.29		
45	24	-	24				
46	24	-	24				
47	15	-	15				
48	12	-	12				

**Table No. 7.—Average production of oil per “blue-whale unit”
in the summer season 1970.**

Other whales are reduced to blue-whale equivalents on the following basis:
1 blue-whale = 2 fin-whales = 2½ humpbacks = 6 sei-whales = 2 grey-whales =
6 Bryde-whales.

Geographical areas.	Company.	Blue-whale equivalents.	Oil production.	
			Total.	Average per blue-whale equivalent.
			Barrels. ¹⁾	Barrels. ¹⁾
<i>North Atlantic and Arctic: —</i>				
Norway	No. 1	22.0	1,616	73.5
Iceland	„ 1	143.3	11,393	79.5
Nova Scotia	„ 1	100.5	6,015	59.9
Newfoundland	„ 1	203.2	11,716	57.6
Total		469.0	30,740	65.5
<i>Pacific North:—</i>				
California	No. 1	3.2	204	63.8
Pelagic	„ 1	257.0	17,706	68.9
	„ 2	257.0	19,165	74.6
	„ 3	284.2	20,706	72.9
	„ 4	155.6	7,522	48.3
	„ 5	191.7	12,429	64.8
Japan	„ 1	25.0	1,415	56.6
	„ 2	31.7	1,398	44.1
	„ 3	38.2	1,401	36.7
	„ 4	30.8	1,919	62.3
	„ 5	5.7	313	54.9
Total		1,280.1	84,178	65.8
<i>Peru</i>	No. 1	111.5	9,198	82.5

¹⁾ Barrel = 170 kg. (Barrel = abt. ¼ long ton, 1 long ton = 1,016 kg.)

**Table No. 8.—Average production of oil per sperm-whale
in the summer season 1970.**

Geographical areas.	Company.	Number of sperm-whales.	Oil production.	
			Total.	Average per sperm-whale.
<i>Africa:—</i>			Barrels ¹⁾	Barrels ¹⁾
Natal	No. 1	1,824	42,319	23.2
<i>Brazil:—</i>	No. 1	76	932	12.3
<i>North Atlantic and Arctic:—</i>				
Azores		205	5,432	26.5
Madeira		44	861	19.6
Norway	No. 1	51	2,711	53.2
Iceland	" 1	61	3,254	53.3
Nova Scotia	" 1	25	1,153	46.1
Total		386	13,411	34.7
<i>Pacific North:—</i>				
California	No. 1	64	1,520	23.8
Pelagic	" 1	900	39,082	43.4
	" 2	900	45,294	50.3
	" 3	900	39,206	43.6
	" 4	4,057	132,532	32.7
	" 5	4,528	156,035	34.5
Japan	" 1	665	12,415	18.7
	" 2	624	12,512	20.1
	" 3	921	22,175	24.1
	" 4	802	13,130	16.4
	" 5	472	7,595	16.1
Total		14,833	481,496	32.5
<i>Peru</i>	No. 1	1,436	31,047	21.6
<i>Australia</i>	No. 1	799	33,307	41.7
<i>Indian Ocean, pelagic</i>	No. 1	108	2,855	26.4
	" 2	290	7,794	26.9
	" 3	439	14,706	33.5
	" 4	443	9,471	21.4
	" 5	117	4,047	34.6
	" 6	52	870	16.7
Total		1,449	39,743	27.4
<i>South Atlantic Ocean, pelagic</i>	No. 1	82	1,756	21.4
	" 2	544	15,788	29.0
	" 3	352	12,412	35.3
Total		978	29,956	30.6
<i>South Pacific Ocean</i>	No. 1	166	5,289	31.9
	" 2	530	14,118	26.6
Total		696	19,407	27.9

¹⁾ Barrel = 170 kg. (Barrel = abt. $\frac{1}{2}$ long ton, 1 long ton = 1,016 kg.)

Grendahl & Søn. Oslo.