United States Department of the Interior Fish and Wildlife Service

Fishery Leaflet 109

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THE FISHERIES OF THE WORLD

By Arthur M. Sandberg*

The fishery resources of the world, throughout the history of man, have contributed to his food, employment, and well-being. Early civilizations were established close to the waters where they could utilize the abundant and reliable resources of the sea. In each country, part of the population has come to devote its life and energies to the catching and handling of fish and shellfish. As a result, fishery products have become established in the customary diets of all peoples. The vital part fishery resources play in the lives of men and nations is emphasized by the statistics of employment and production of the various countries.

Prior to World War II, the fisheries of the world annually produced about 37 billion pounds of fishery products, valued at almost a billion dollars. 1/ Since the outbreak of the war, fishing operations have been curtailed in many areas due to the loss of men and vessels to the Armed Forces, shortages of gear, and restrictions on fishing due to military operations. As a result, the total catch of the world fisheries is currently considerably below pre-war production. This curtailment is reflected in actual and estimated figures and reports from the major producing countries.

An important problem facing the United Nations is that of producing an adequate supply of food for the countries liberated or occupied as the war progresses. Food responsibilities are likely to increase as additional territories are freed or conquered. An important source of food, which is readily available, is the fisheries in the vicinity of these areas. The high nutritive quality and digestibility of fish proteins class fish among the more desirable food products. These proteins balance the deficiencies of the cereal proteins which are included in the average dist. Much of the yield of the fisheries may be consumed directly as human food, while the remainder may be converted into such essential byproducts as vitamin oils, livestock, and poultry feeds, fertilizers, and industrial oils,

Of the total world fishery production of about 37 billion pounds, Asia accounts for about 49 percent, followed by Europe with 32 percent, and North America with 16 percent. Together, these areas produce 97 percent of the world total.

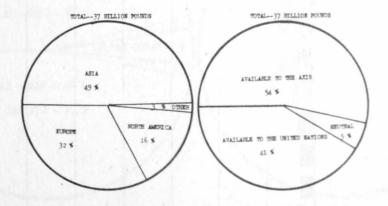


Figure I -- World Fishery Production by Continents

Figure 2--Control of the World's Fisheries in

At the height of Axis power, it is estimated that the countries in that alliance controlled about 54 percent of the world's fisheries by volume. About 41 percent was available *Statistician, Division of Commercial Fisheries, Washington 25, D.C. 1/This value and those in the tables following, in practically all instances, are based on the value of

the fish and shellfish to the fishermen.

Note: This leaflet supersedes FMN Sep. 70.

to the United Nations. The balance, or 5 percent, was taken by neutral countries and was available to either or both factions. Since that time, however, a number of fisheries formerly under Axis domination have become available to the United Nations.

The leading fishery nation of the world is Japan. Its fishing activities extend over the oceans of the world. Japan alone produces about 22 percent of the world catch of fishery products. Before the war, its fishing craft were at our front door in Alaska, off Mexico and off South America. Japan, at the present time, controls a number of the other important world fisheries. Among these are fisheries in China, Chosen, British Malaya, and the Philippines. In all, Japan is estimated to control about 38 percent of the world's fisheries, or a total of about 14 billion pounds.

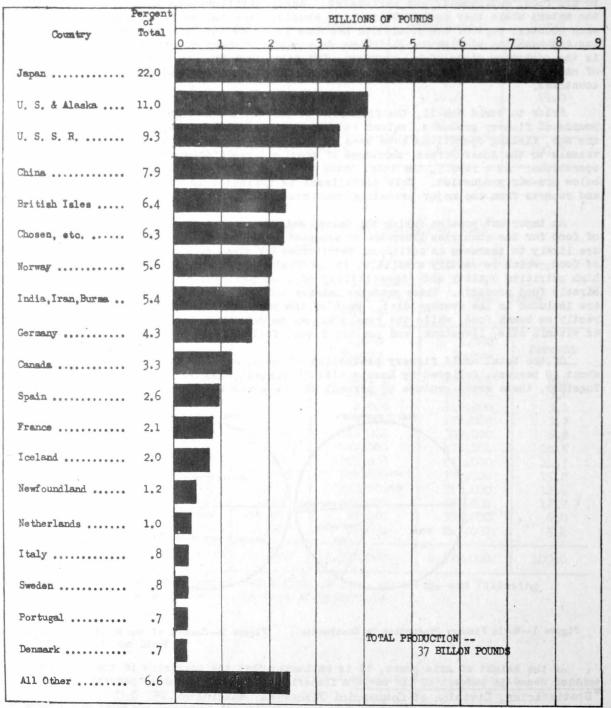


Figure 3--World Fishery Production by Countries

The United States fisheries rank second to those of Japan, but our fisheries, in the main, are carried on close to home. Exceptions are our tuna fleet which operates off Central and South America in the Pacific, our fishery for salmon, helibut, sharks, flounders, and other species off British Columbia. Our Naw England trawler fleet, which takes a considerable part of its catch on banks off the coasts of Canada, Nova Scotia, and Newfoundland, and our fishery for red snappers and groupers on Campeche Bank off the West Coast of Mexico. Before the war, about 14 percent of our catch was taken off foreign shores.

It is expected that greater use will be made of the known, but yet unexploited, resources of the northern waters of the Atlantic and Pacific in the post-war period. The fishing history of our nation indicates that we have fully exploited only a limited number of the most desirable species. Some outstanding examples of fisheries that could be more fully developed are the practically untouched Alaskan resources other than salmon, herring, and halibut, the trawl fishery off Washington and Oregon, the Pacific Coast anchovy fishery, New England's off-shore trawl fishery, and the menhaden fishery of the Atlantic Coast and Gulf of Mexico. By wise use of our available and potential fisheries, the United States could produce at least as much fish as Japan.

Other leading fishery nations are Russia, China, England, and Norway.

Ninety-eight percent of the world's fisheries products are taken in the Northern Hemisphere. Most of the world's population is found in this hemisphere and its fisheries have been more fully exploited. It has been reported, however, that there are extensive untouched fishery resources off the coasts of South America. This apparently is true also of other areas in the Southern Hemisphere.

The fisheries of the Pacific and Atlantic Oceans are almost equally productive. The former produces about 48 percent of the 37-billion pound world total, and the latter about 47 percent. Five percent of the catch is taken in the Indian Ocean. The North Pacific accounts for 47 percent of the world production and the North Atlantic for 46 percent. The larger portion of the catch in the Northern Hemisphere is caught north of the Tropic of Cancer in the Temperate Zone.

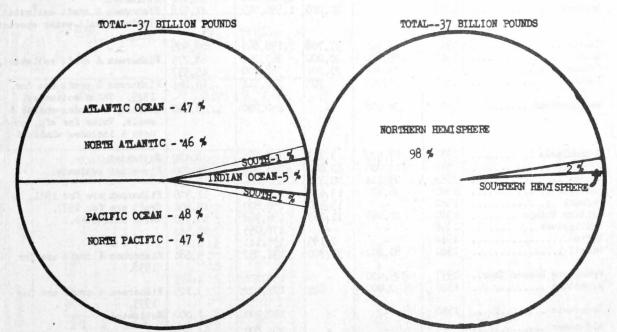


Figure 4--World Fishery Production by Waters

Figure 5 -- World Fishery Production by Hemispheres

The following tables contain data on the quantity and value of fishery products taken in the various countries and, when available, information on the number of fishermen and fishing craft employed. Data on the fisheries of the various countries have been obtained from consular reports, publications issued by various foreign countries and data collected by Fish and Wildlife Service representatives. In most instances, statistics on the whale and seal fisheries have not been included in the catch figures, and in a number of countries

Table I -- Fisheries of the World: Production by Continents

Continent	Quantity	Value
A Committee of the American States of the Committee of th	Pounds	Dollars
North America (including West Indies)	5,931,477,000	148,711,000
South America	468,557,000	16,382,000
Europe	11,776,832,000	396,894,000
Asia	18,084,467,000	247,209,000
Africa	394,601,000	16,705,000
Oceania	123,970,000	8,034,000
Total	36,779,904,000	833,935,000

the volume of shellfish taken are likewise omitted. Where data are known to be incomplete, this has been indicated in the tables. In a number of instances, it has been necessary to estimate the volume and value of the fishery. Accordingly, the data shown can be considered only approximately correct.

Table II -- Fisheries of the World: Fishermen, Fishing Craft, and Production by Principal Countries

Country	Year	Fishermen engaged	Fishing craft	Quantity	Value	Remarks
		Number	Number	Thousands	Thousands	and the second of the second of the second
	1 7	100000000000000000000000000000000000000	-	of pounds	of dollars	
Japan	1936	1,102,502	366,267	8,107,816	100,807	A STATE OF THE PROPERTY OF THE PARTY OF THE
U. S. and Alaska	1940	124,795	71,810	4,059,524	98,957	-
U. S. S. R	1938	250,000	100200	3,432,000	82,368	Fishermen are for 1933.
		100	0.000	dette date d	or of own think	Value estimated.
China	1939		-	2,890,000	20,000	Estimated.
British Isles	1938	-	-	2,335,531	80,835	Quantity does not include
						shellfish.
Chosen (Japan)	1939	10.00	-	2,300,000	24,000	Quantity estimated.
Norway	1939	115,000	74,580	2,041,620	24,091	A LOUIS OF THE PARTY AND THE
India, Iran, Burma	1932	_	,	2,000,000	20,000	Estimated.
Germany	1938	30,000	20,000	1,5%,919	41,518	Fishermen & craft estimated.
		,,,,,,	,	-,,,,,,,,	42,720	Includes salt-water species
						only,
Canada	1941	63,745	37,708	1,198,865	29,909	omy.
Spain	1940	195,000	40,000	967,252	68,275	Fishermen & craft estimated.
France	1937	73,989	23,201	788,400		rishermen a crart estimated.
Iceland	1942	5,003	708	740,514	45,537	Fishermen & craft are for
	1,42	9,009	100	140,514	16,264	
Newfoundland	1937	24 458		450 000	0 000	1943. Value estimated.
MONIOCHILLAND	1701	34,458	-	450,000	8,000	Quantity excludes whales &
		0.00				seals. Value for mfg. prod-
					No to the state of	ucts & includes whales &
Watherland -	1000	17 570	2 442	250 265	0 .0-	seals.
Netherlands	1939	17,570	3,443	350,367	8,492	Estimated.
I taly	1937	108,000	42,051	304,000	26,000	Fishermen estimated.
Sweden	1939	23,114	20,378	292,866	7,830	
Portugal	1940	36,837	13,630	260,588	11,926	Fishermen are for 1941.
Denmark	1940		15,350	250,800	10,904	Craft are for 1937.
British Malaya	1940	27,069	11,167	196,768	10,350	Value estimated.
Philippines	1938	-	-	178,055	10,544	
Mexico	1940	-	2,195	155,141	6,887	
Brazil	1940	80,002	31,300	134,252	5,584	Fishermen & craft are for
7						1938.
Kwangtung Leased Terr	1937	305,000	-	132,704	4,673	
Argentina	1940	2,000	824	121,122	3,125	Fishermen & craft are for
V		1				1933.
Venezuela	1940	-	-	100,000	3,000	Estimated.
All other	_	-	-	1,394,800	64,059	
GRAND TOTAL	de gard	Salt Car	PERSONAL PROPERTY.	36,779,904		CHARLES FOR A PERMIT
			-	30,//7,904	833,935	
	-	1	1			

Table III -- Fisheries of the World: Fishermen, Fishing Craft, and Production by Continents and Countries

Continent and Country	Year	Fishermen engaged	Fishing craft	Quantity	Value	Remarks
TO A TRANSPORT OF STREET AND A		Number	Number	Thousands	Thousands	
North America:	Fair			of pounds	of dollars	Grant Park Contract C
	1941	63,745	37,708	1,198,865	29,909	
Central America and West Indies:	1		. 7			The state of the s
Bahamas (British)	1936	1,900	65 536	1,275	112	
Barbados(")	1940	1,900	536	1,000	100	Estimated
British Honduras	1940	-	-	1,000	50	
Costa Rica	1940	-	12.5	1,000		Estimated.
Cuba	1940		1-	15,000	1,200	Estimated.
		1	13 080		40	F-ti-stal
Dutch West Indies	1940		323	1,000	40 60 28	Estimated. Estimated.
El Salvador	1940	7.6	346 85	9,000	540	Estimated.
Guatemala	1940		13.45	100	540	Estimated.
Haiti		I TOWN		2,000	80	Estimated.
Handungs	1940			300	12	Estimated.
Jameice (British)	1940	1,200	400	10,000	800	Estimated.
Honduras Jamaica (British) Leeward & Windward Islands (British)	1940	1,437	327	3,600		Estimated. Men & craft for Leeward Is. only.
Nicaragua	1940	-,-,,	2-1	300	350	Estimated.
Panama	1940	-	-	3,000	240	Estimated.
Puerto Rico Trinidad & Tobago (British) Virgin Islands (British) " (United States)	1940	1,403	716 948 72 186	3,080	207 600	
Trinidad & Tobago (British)	1940	2,870	948	6,000 160 616	600	Estimated.
Virgin Islands (British)	1940	200	73	160	13	Value estimated.
" (United States)	1940	405	186	616		
Greenland	1937			6,678	204	Includes exports only.
Mexico	1940	-	2,195	155,141	6,887	The 1941 production reported at 109,981,000 lbs.,
	1					valued at \$4,990,029.
Wewfoundland	1937	34,458	-	450,000	8,000	Quantity excludes whales & seals. Value for mfg.
	1-121	21,12				products & includes whales & seals.
St. Pierre and Miquelon	1942		144	1,638	197	Includes salted green fish only,
United States and Alaska	1940	124,795	71,810	4,059,524	98,957	The 1943 production estimated at 4 billion lbs.,
	1	.,,,,,	5 7	.,		valued at 180 million dollars.
TOTAL, North American countries	11.	_	-	5,931,477	148,711	
				-		
South America: Argentina	1940	2 000	824	121 122	2 126	The 1942 production reported at 126,784,000 lbs.
Argentina	1940	2,000	024	121,122	3,125	Fishermen & craft for 1933.
Brazil	12040	90 000	23 200	124 252	F 504	Fishermen & craft for 1938. The 1943 production
Brazil	1940	80,002	31,300	134,252	5.584	estimated at 176 million lbs.
British Guiana	1040	602	284	500	50	Estimated.
Chile	1940 1942	692 5,617	2,410	70,869	3 5/3	Value estimated.
Colombia	1940),01/	-,410	3,500	3,543 210	Estimated.
French Guiana		-	-	3,500 1,792 26,097 3,748 6,677	170 365 200	Estimated.
Peru	1940	6,568	2,404	26,097	~ 365	
Peru (Dutch Guiana)	1940	-	-	3,748		Estimated.
Uruguay	1934	313	-	6,677	135	Fishermen are for 1940. The 1940 production re-
			1		2 000	ported at 7,334,000 lbs.
Venezuels	1940	-	-	100,000	3,000	Estimated.
TOTAL, South American countries	1	7 80	-	468,557	16,382	
Asia:						
Arabia	1936	25000	-	2.003	86	Exports only.
Arabia British Malaya	1936 1940	27,069	11,167	196,768	10,350	Value estimated.
Ceylon	1 1935 1	1,493	6,959	2,003 196,768 1,800		Estimated.
China Chosen (Japan)	1939	-		2,890,000	20,000	Estimated.
Chosen (Japan)	1939	-	-	2,300,000	24,000	Quantity estimated.

Continent and Country	Year	Fishermen engaged	Fishing craft	Quantity	Value	Remarks
9		Number	Number	Thousands	Thousands	
Asia (Cont'd.): Hawaii India, Iran, Burma Indo-China Japan Kwangtung Leased Territory (Japan) Palestine	132/	4,000 - 1,102,502 305,000 1,663	999 366,267 530	of pounds 19,706 2,000,000 79,538 8,107,816 132,704 3,821	1,501 20,000 3,059 100,807 4,673 252	Fishermen, craft & value estimated. Estimated. Includes exports only. Fishermen & craft for 1941. The 1942 production reported at 3.9 million lbs., valued at \$568,000.
Philippines Thailand (Siam) U. S. S. R. (Asia only) TOTAL, Asiatic countries	1935	-	-	178,055 44,316 2,127,840 18,084,467	10,544 795 51,068 247,209	Includes exports only. Value estimated.
Curope: Felgium Bulgaria British Isles:	1938 1940	1,784	445	86,254 15,871	4,216 2,380	Fishermen & craft for 1936. Value estimated.
England and Wales	1938	-	-	1,711,704	59,945	Quantity does not include data on crebs, lobsters,
Scotland Ireland Czechoslovakia Danzig Denmark Estonia Faroe Islands	1938 1941 1937 1931 1940 1935 1938 1933	8,865 2,100 2,930	3,137 811 15,350 1,850	592,938 30,889 6,500 6,303 250,800 40,477 55,100	18,751 2,139 390 350 10,904 602 1,408 2,381	& oysters. Ditto Ditto Value estimated. Creft for 1937. The 1943 production reported at 22 million lbs. Estimated.

4		Number	Number	Thousands	Thousands	
1: (6-413).				of pounds	of dollars	
Asia (Cont'd.): Hawaii India Iran, Burma Indo-China Japan Kwangtung Leased Territory (Japan) Palestine	1937 1932 1937 1936 1937 1940	4,000 - 1,102,502 305,000 1,663	999 366,267 530	19,706 2,000,000 79,638 8,107,816 132,704 3,821	1,501 20,000 3,059 100,807 4,673 252	Fishermen, craft & value estimated. Estimated. Includes exports only. Fishermen & craft for 1941. The 1942 production re-
Philippines Thailand (Siam) U. S. S. R. (Asia only) TOTAL, Asiatic countries	1938 1935 1938			178,055 44,316 2,127,840 18,084,467	10,544 795 51,068 247,209	ported at 3.9 million lbs., valued at \$568,000. Includes exports only. Value estimated.
Europe: Relgium Bulgaria British Isles:	1938 1940	1,784	445	86,254 15,871	4,216 2,380	Fishermen & craft for 1936. Value estimated.
England and Weles Scotland Ireland Czechoslovakia Danzig Denmark Estonia Faroe Islands Finland France Germany Greece Iceland Italy Latvia Lithmania Maltese Islands Norway Poland Portugal	1938 1938 1939 1939 1937 1940	8,865 2,100 - 2,930 73,989 30,000 6,860 108,000 3,907 1,300 17,570 115,000 18,000 3,907	3,137 811 15,350 1,850 23,201 20,000 2,015 42,051 524 700 3,443 74,580 13,630	1,711,704 592,938 30,889 6,500 6,303 250,800 40,477 55,100 79,362 788,400 1,596,919 39,537 740,514 304,000 29,752 2,788 2,380 350,367 2,041,620 260,588	59,945 18,751 2,139 390 350 10,904 1,408 2,381 45,537 41,518 3,817 16,264 26,000 324 203 265 8,492 24,091 11,926	Quantity does not include date on crebs, lobsters, & oysters. Ditto Ditto Ditto Value estimated. Craft for 1937. The 1943 production reported at 22 million lbs. Estimated. Fishermen & craft estimated. Includes salt-water species only. Fishermen & value estimated. The 1938 production reported at 51 million lbs. Value estimated. Fishermen & craft are for 1943 Fishermen estimated. Estimated. The 1942 production reported at 12 billion lbs. Fishermen are for 1941. The 1941 production reported at 403.5 million lbs. valued at \$21.613.000.
Rumania	1938	195,000	40,000	79.738 967,252	4,183 68,275	ported at 403.5 million lbs., valued at \$21,613,000. The 1942 production reported at 89,621,000 lbs., valued at \$4,705,000. The 1943 production reported at 979 million lbs.
Sweden	1939	23,114	20,378	292,866	7,830	The 1943 production reported at 979 million lbs., valued at \$98,230,000. Fishermen & craft estimated. The 1941 production reported at 249.4 million lbs., valued at \$17,055,000.
Switzerland Turkey U. S. S. R. (Europe only) Yugoslavia TOTAL, European countries	1942 1935 1938 1936	135 18,294	6,293	51,000 1,304,160 14,300 11,776,832	214 1,525 31,360 690 396,894	Quantity estimated. Value estimated. The 1938 production reported at 17,635,200 lbs.

(Table III continued on page 10)

Continent and Country	Year	Fishermen engaged	Fishing craft	Quantity	Value	Remarks
frica: Algeria Angola (Portugal) Belgian Congo Canary Islands Cyrenaica Egypt French Morocco French West Africa Kenya Morocco (Spanish & Intern. Zone) Seychelles Southwest Africa Tripoli Tunisia Union of South Africa TOTAL, African countries cenia: Australia Fiji Islands New Zealand TOTAL, Oceanic countries GRAND TOTAL	1928 1931 1938 1938 1935 1935 1931 1935 1934 1934 1937 1936	9,081 2,218	1,081 - 250 10,022 511 - 350 - 3,130 - 5,462 1,279	Thousands of pounds 44,780 31,517 23,681 11,638 11,758 70,767 42,580 23,212 10,988 30,864 3,560 6,000 1,910 23,346 60,000 394,601 72,732 2,838 48,400	Thousands of dollars 3,162 480 540 1,450 3,33 4,055 1,264 1,72 167 484 61 400 220 1,397 2,500 16,705 5,850 234 1,950 8,034	Includes exports only. Includes exports only. Quantity and value estimated. Includes sponges, sardines, & tuna only. Value est

Table IV--Fisheries of the World: Control of Fisheries in World War II1/
(In Thousands of Pounds--000 omitted)

(1:	n Thousands of	Pounds000 omitted)	
Fishery	Quantity	Fishery	Quanti ty
Available to Axis Nations:		Available to the United Mations:	
Japan	8,107,816	United States & Alaska	4,059,524
China	2,890,000	U. S. S. R	3,432,000
Chosen	2,300,000	British Isles	2,335,531
Norway	2,041,620	India, Iran, Burma	2,000,000
Germany	1,596,919	Canada	1,198,865
France	788,400	Iceland	740.514
Netherlands	350.367	Newfoundland	450,000
Italy	304,000	Mexico	155,141
Denmark	250,800	Brazil	134,252
British Malaya	196,768	Argentina	121,122
Philippines	178,055	Venezuela	100,000
Kwang tung Leased Territory	132,704	Other	473,995
Other	671,274	Total available to United	
Total available to Axis Nations	19,808,723	Nations	15,200,944
Neutral:		Summery:	
Spain	967,252	Available to Axis Nations	19 808 723
Sweden	292,866	Available to United Nations	
Portugal	260,588	Neutral Nations	
Other	249,531		36,779,904
Total Neutral Nations	1,770,237	Grand Total	30,777,504

^{1/} This was the apparent distribution of the fisheries during the height of Axis power, or about 1942.

A number of the fisheries listed above as available to the Axis have since then become available to the United Nations.

Table V--Fisheries of the World: Production by Waters (In Thousands of Pounds--000 omitted)

Water	Quantity
Atlantic Ocean and confluent waters:	
Northern Hemisphere:	
Off North America, including the West Indies	3,229,944
Off South America	109,540
Off Europe, including the Mediterranean, Black, and Caspian Seas	13,176,813
Off Africa, including the Mediterranean	204,735
Total northern Atlantic	16,721,032
Southern Hemisphere:	
Off South America	262,051
Off Africa	121,198
Total southern Atlantic	383,249
Total Atlantic Ocean	17,104,281
Pacific Ocean and confluent waters:	
Northern Hemisphere:	
Off North America	2,721,239
Off Asia	14,718,657
Total northern Pacific	17,439,896
Southern Hemisphere:	
Off Oceania	123,970
Off South America	96,966
Total southern Pacific	220,936
Total Pacific Ocean	17,660,832
ndian Ocean and confluent waters:	
Southern Hemisphere off Africa	10,988
Northern Hemisphere off Asia	2,003,803
Total Indian Ocean	1/2,014,791
Grand Total	36,779,904
OLOTH 10 ANT	20,112,204

1/ The production of Western Australia in the Indian Ocean has been included with Pacific Ocean off
Oceania and that of the Union of South Africa in the Indian Ocean has been included with the Atlantic.

Table VI--Fisheries of the World
Supplementary Table of Fisheries of Certain Countries Whose Catch is Obtained from Both
the Atlantic and Pacific Oceans by Waters

Country		Pacific and confluent waters	Atlantic and confluent waters
	And the Personal	Pounds	Pounds
Canada		534,353	644,512
Costa Rica		900	100
Guatemala		100	
Honduras		200	100
Nicaragua.		200	100
Panasa		2,800	200
Mexico		142,311	12,830
Inited States and Alaska		2,019,969	2,039,555
Colombia			3,500
U. S. S. R.		789,360	1/2,642,640