Miami, the local fish industry, and the State of Florida we bid all of you welcome. May your work be profitable and enjoyable; your determination stronger; and your stay most pleasant. By all means come back again, we are very happy to have all of you here.

#### **Opening Address**

RICHARD A. KAHN

Chief, Branch of Economic Facilities, Defence Fisheries Administration, Washington, D. C.

WHEN I HAD THE HONOR of delivering the opening address in 1948, at the first meeting of the Gulf and Caribbean Fisheries Institute, the hope was expressed that enlightenment would radiate from this new enterprise, established in the United States, all over the countries and nations which comprise the Gulf and Caribbean area. International trade of fish and fishery products in this area has developed in the last three years and this enrichment of international trade has been due, to a large extent, to interest in the Gulf and Caribbean area brought about by this Institute.

Detailed figures on the United States trade with the Gulf and Caribbean area will be found at the end of this paper.

Exports of canned salmon from the United States to six Gulf and Caribbean countries consisting of Mexico, Panama, Cuba, Haiti, Dominican Republic, and Columbia, increased from about 162,000 pounds in 1948 to about 344,000 pounds in 1950. More than half of these went to Mexico. Exports of canned sardines to fourteen countries in the Gulf and Caribbean area increased from about 4,700,000 pounds in 1948 to about 17,300,000 pounds in 1950. More than half of them went to Cuba, about 2,500,000 pounds were exported to Venezuela, a great fish producing country itself. About a million pounds of canned mackerel were exported in 1950 to Salvador. Salvador is in the Gulf area, but not located at the Gulf. Among the imports from Gulf and Caribbean countries to the United States, imported Mexican shrimp increased 77% from about 22,000,000 pounds in 1948 to about 39,000,000 in 1950. Other species, however, show more perplexing figures. Imports of canned spiny lobsters from Cuba increased by 144% from 294,000 pounds in 1948 to 719,000 pounds in 1950. Clams, fresh or frozen, imported from Mexico increased from about 307,000 pounds in 1949 to about 827,000 pounds in 1950. The imports of fresh or frozen tuna from Cuba to the United States, still small in absolute figures, increased more than ten times in the three years. In 1950 182,000 lbs. were imported. Imports of fishery products, considered specialties of the Gulf and Caribbean, such as spiny lobsters (not canned) and turtles remained relatively unchanged; about 500,000 pounds from the Bahamas, about 1,000,000 pounds from Cuba, about 300,000 from Mexico were imported.

The production figures within the Gulf and Caribbean area are not as satisfactory as the international trade figures are. The phenomenal development of the shrimp fisheries in the United States and Mexico cannot be considered as normal evolution of local fisheries for domestic consumption needs. While the production of fishery products per fisherman in the United States-Gulf area on the basis of 1947 figures is 24,577 pounds (including 8,722 pounds non-food fish), the production in the other independent countries of the Gulf and

Caribbean area is about 3,650 pounds and in the dependent countries of the Gulf and Caribbean about 1,880 pounds, on the basis of figures published by the Food and Agriculture Organization of the United Nations. The production per capita of the population in the Gulf States of the United States from the Gulf-Caribbean area is about 30.1 pounds fish in the round (including 11.4 non-food fish), in the other independent countries 6.6 pounds round weight; and in the dependent territories, about 10.1 pounds, round weight.

It was known when this Institute was established that the population of the Gulf and Caribbean area outside the United States suffers from insufficient domestic fish production. However, as Goethe said: "The truth requires constant repetition because error is preached about us all the time." The truth is that more fish at reasonable prices must be made available to the peoples of the Gulf and Caribbean area in the interest of their physical development. Many ways and means of accomplishing this have been discussed in earler meetings

of this Institute.

Dr. F. G. Walton Smith in his welcoming address in 1948 mentioned the fact that the Institute, by bringing together biologists, processors, technologists and economists, is actually universal in its character. Let me develop somewhat further this idea of universality. It is expressed also in the fact that this Institute is part of a university. The name university itself indicates that this is an institute where all arts and sciences are taught. This is not the only meaning of the word university. It means also that all sciences and arts should be included in the knowledge of those who graduate from the university. The true student should be universal and liberal in his education and also in his character. That does not mean that he should add in his mind innumerable details of knowledge, but he should have a broad concept of all the knowledge of his time and he should acquire such knowledge the liberality and the nobility of spirit, which is broadmindedness towards all and everybody. Universality and liberality in education brings about a certain morality of character which makes for easy understanding of different religions, different languages and different races. When I look towards the development of my own art namely, political economy, I should remember that the founder of this art of political economy was a professor of moral philosophy in Glasgow, Adam Smith. The science which is the concern of most of you here namely, biology, was, until the turn of the century, 1900, included in the curriculum of the Departments of Philosophy. We do not have to excuse ourselves if we, as economists or biologists, again become philosophical and universal. That is what the spirit of the university requests from us, and that is just what we want to do. Let us have this great idea of a broad education in mind when we proceed in our separate sessions namely; the commercial session, the shellfish session, the economic session, the technology session, and the Caribbean session. All these sessions should be held in the spirit of universality. If we follow this line of thinking, we will tend to liberalize our minds and to come to a real enjoyment of this exceptionally fine place, in which we are assembled. Let me close with the great words of Aristotle, "Of possessions," he says, "those rather are useful, which bear fruit; those liberal, which tend to enjoyment. By fruitful, I mean those which yield revenue; by enjoyable, where nothing accrues of consequence beyond the using." What we acquire here during the next days will be useful as well as liberal possessions, in the meaning of Aristotle. For many the acquisition of knowledge on possible exports, on technological developments and on exploratory fishing should be fruitful. But to all of us the new acquisition of some more knowledge should be enjoyable in the meaning of the philosopher, because

nothing accrues of consequences beyond the acquisition. In this way we contribute to the liberal and universal education, which so successfully is pursued by the University of Miami.

#### U. S. FOREIGN TRADE WITH GULF AND CARIBBEAN AREAS

### I. EXPORTS FROM THE UNITED STATES TO COUNTRIES OF THE GULF AND CARIBBEAN AREAS.

	Bahamas			
_		1948	1949	1950
Item		lbs.	lbs.	lbs.
		9,699	10,633	3,119
Fish, nes, fresh or frozen		•	-	230
Oysters, shucked, fresh or frozen		200	• • • •	753
Shrimp, fresh or frozen		200	295	1,489
Fish, smoked or kippered		4 805	421	444
Salmon, canned		4,805		1,125
Sardines, canned, inc. pilchards		3,049	72	7,435
Fish, canned, nes, ex. shellfish		1,189		
Clams, canned			510	• • • •
Salmon, fresh or frozen		449		• • • •
Shrimp, salt, pickled, dried, cured		100		• • • •
Salmon, salt, pickled, dried, cured		265	• • • •	• • • •
Herring, canned	*	367	• • • •	
Shrimp, canned		102		
Fish and prod. ed. nes		2,114		
	Barbados			
Shrimp, fresh or frozen				528
Shrimp, canned		280		
Jimmp, vaimes	BERMUDA			
Salmon, fresh or frozen		3,173	1,529	633
Cod, haddock, fresh or frozen			2,315	400
Fish, n. e. class., fresh or frozen		2666	3,023	3,134
Oysters, fresh or frozen, in shell		••••	1,400	
		4,629	4,027	11,644
Shrimp, fresh and frozen	*	795	.,	695
Lobster, fresh and frozen	20		220	1,545
Shellfish, n. e. class., fresh or froze	51.I		201	393
Fish, smoked or kippered		17,432		1,440
Salmon, canned		2,310	450	180
Sardines, canned, incl. pilchard			3,996	
Crabs, crab meat, canned		2,755 100	800	
Clams, fresh or frozen				• • • •
Tuna, canned		11 007	16,301 717	• • • •
Fish, nes, canned, except shellfish		11,087		30
Shrimp, canned		6,058	3,630	30
Shellfish, pres., prep., nes			80	• • • •
Oysters, fresh, frozen, shucked		1,572		• • • •
Cod, haddock, hake, etc., salt., pic	kled, dried,	200		• • • •
cured				
Fish, nes, salt., pickled, dried, cur	ed	200		
Herring, canned		600	• • • •	• • • •
Lobster, canned		53		
Clams and oysters, canned		150		• • • •
Crabs, fresh or frozen		300		• • • •
Fish and prod, ed., nes		5,370		
	it <b>is</b> h Guiana			
Sardines, canned, inc. pilchards			58,425	
Jatumes, camico, nic. pucharda			•	

BRITISH HONDURAS

British Hondu	RAS	•	
Salmon, canned	630		310
Sardines, canned, inc. pilchards	2,250		8,330
Fish and prod. ed., nes	205		
Canal Zone, Pai	VANGA		
		15 200	990
Salmon, fresh or frozen	8,917	15,200	
Cod, haddock, etc., fresh or frozen		86,510	12,698
Fish, fresh or frozen, n.e. class.	190,075	54,457	23,090
Oysters, shucked, fresh or frozen	7,968	13,230	6,637
Shrimp, fresh or frozen	50,458	34,400	3,462
Lobsters, fresh or frozen	6,625	2,620	940
Shelfish, fresh or frozen, n.e. class.		7,805	4,750
Cod, haddock, salt., or pickled, dried, cured	634,244	526,649	361,334
Herring, salt. or pickl.	1,650	16,890	750
Fish, salt. or pickl., n.e. class.	105,612	24,850	12,000
Fish, smoked or kippered		1,845	3,670
Salmon, canned	109,300		48,404
Sardines, canned, incl. pilchards	123,610	71,118	110,342
Cod, haddock, hake, etc., canned	338	1,600	500
Tuna, canned		19,123	32,554
Fish, canned, n. e. class.	13,894	9,832	11,148
Shrimp, canned	8,525	9,501	4,017
Crab and crab meat, canned	3,390	2,116	1,434
Oysters, canned		4,233	1,472
Fish, prep., pres., n.e. class.		2,600	640
Shellfish, prep., pres., n.e. class.			165
Clams, fresh or frozen	944	300	
Salmon, salt., pickle., dried, cured	::::	1,940	
Herring, canned	6,928	1,640	• • • •
Mackerel, canned	• • • •	1,200	
Clams, canned		6,181	1,846
Oysters, fresh (in shell)	3,200	• • • •	• • • •
Lobsters, canned	1,555		• • • •
Clams and oysters, canned	8,630		
Crabs, fresh or frozen	573	• • • •	• • • •
Fish and prod. ed. nes	58,178	• • • •	• • • •
Colombia			
Herring, salted, pickled, dried, cured	11,245	45,150	10,967
Salmon, canned	111,584	30,102	173,034
Sardines, canned, inc. pilchards	197,284	992,157	2,274,845
Cod, haddock, hakes, etc., canned			3,000
Tuna, canned		12,793	62,275
Mackerel, canned		5,430	2,475
Fish, canned, nes, except shellfish	366,116	2,671	8,879
Shrimp, canned	12,963	9,850	32,979
Crabs and crab meat, canned	2,274	2,270	783
Oysters, canned		3,128	4,815
Clams, canned		1,047	705
Fish, nes, fresh or frozen	1,250		
Cod, had., hake, etc., salt., pickle., cured	1,077		
Herring, canned	2,061		
Lobsters, canned	1,290		
Oysters and clams, canned	4,553		• • • •
Shellfish, nes, canned	2,487		• • • •
Fish and prod. ed., nes	7,772	• • • •	• • • •

#### COSTA RICA

Cosia iticii			
Cod, haddock, etc., salt., pickle.,	5,000		550
dried, cured	1,414	2,500	1,930
Shrimp, salt., pickle., dried, cured	27,513	2,466	7,590
Salmon, canned	478,708	611,429	1,322,884
Sardines, canned, inc. pilchards	450		330
Cod, haddock, hake, etc., canned	48,688	1,200	1,357
Fish, canned, nes., exc. shellfish	4,556	2,577	2,967
Shrimp, canned	• • • •	805	808
Oysters, canned		1,350	• • • •
Mackerel, canned Crabs, crab meat, canned	537	97	• • • •
Crabs, crab meat, canned	88		
Oysters, fresh, frozen, shucked	450		
Shrimp, fresh or frozen Herring, salt., pickle., dried, cured	2,300		
Sardines, salt., pickle., dried, cured	2,250		• • • •
	1,325	,	• • • •
Herring, canned Clams and oysters, canned	3,110		• • • •
Fish and prod. ed., nes	3,430		• • • •
CUBA			
	13,011	1,578	535
Salmon, fresh and frozen Cod, haddock, fresh and frozen	••••		2,540
Fish, n.e. class, fresh and frozen	34,925	22,388	30,034
FISH, H.E. Class, Hesh and Hozen	12,452	10,554	21,000
Shrimp, fresh and frozen Shellfish, n.e. class, fresh and frozen		16,096	19,290
Salmon, salted, pickle., or cured		• • • • •	480
Cod, haddock, salted, pickle., dried, cured	4,764	51,640	6,348
Herring, salted, pickled, dried, cured	20,02	37,457	36,532
Fish, n.e. class., salted or pickled	2,214	2,831	7,122
Shrimp, salted, pickled, dried or cured	161,643	131,462	261,564
Shellfish, n.e. class, salted or pickled	• • • •	7,500	1,380
Salmon, canned	7,909	16,514	82,750
Sardines, canned, incl. pilchards	3,061,293	5,001,950	9,438,331
Herring, canned	7,752	• • • •	4,214
Tuna, canned		45.540	20,001
Mackerel, canned		45,540	20,550
Fish, canned, n.e. class.	197,579	60,959	98,159 77,179
Shrimp, canned	51,554	36,882	
Crabs and crab meat, canned	400	216	
Oysters, canned		435	
Shellfish, canned, n.e. class.	36,282	97,643	400
Fish, prepared and pres., n.e. class	2 010	420 555	
Ovsters, fresh or frozen (in snell)	3,810		370
Clams and oysters, canned	686		• • • •
Clams, fresh or frozen	990 118.006	• • • •	
Fish and prod. ed. nes	118,000		• • • •
Dominican Re	PUBLIC		
		620	616
Fish, nes, fresh or frozen	375		300
Shrimp, fresh or frozen Cod, haddock, etc., salt., pickled,			
Cod, naddock, etc., sait., pickied,	600		19,300
dried, cured Herring, salt., pickle., dried, cured	*	1,000	160
Colmon canned	6,782	25,200	
Salmon, canned Sardines, canned, inc. pilchards	24,175	20,243	78,940
Herring, canned			18,000
Tuna, canned	• • • • •	1,185	1,605
Fish, canned, nes. exc. shellfish	1,845	66	1,086
I lon, Cannon, ness over services			

Ol-imp conned	750	1,500	5,778
Shrimp, canned		97	97
Oysters, canned		110	
Shellfish, nes, fresh or frozen	• • • •	200	• • • •
Shrimp, salted, pickled, dried, cured	113		
Crab, crab meat, canned	113	959	• • • •
Fish, nes., salted, pickled, dried, cured	3,900		• • • •
Clams and oysters, canned	173		
Clams and dysters, carnica	73,827		
Fish and prod. ed., nes	•		
French West In	DIES		2,726
Salmon, canned			
Fish, canned nes., class., exc. shellfish	2,400	• • • •	• • • •
Guatemala			
	3,000	300	300
Fish, fresh, frozen, n.e. class.		304	340
Oysters, shucked, fresh or frozen	5,622		4.035
Shrimn fresh or frozen	450	3,010	4,033
Cod, haddock, hake, salted or pickled,		٠.	
	11,600	16,320	13,028
dried, cured	400	300	275
Herring, salted, pickled, dried, cured			
Fish, salted, pickled, dried or cured		500	500
n.e. class.	0.779	16,665	10,298
Salmon, canned	9,778		1,184,830
Sardines, canned, inc. pilchards	289,744	967,743	
Herring, canned			280
Tuna, canned		781	1,586
Fish, canned, n.e. class.	20,954	3,944	355
rish, camicu, n.c. class.	6,626	8,582	9,511
Shrimp, canned	842	285	701
Crab and crab meat, canned		2,606	2,232
Oysters, canned	558	2,592	570
Shellfish, canned, n.e. class.		220	
Lobsters, fresh or frozen	• • • •		710
Shrimp, salted, pickled, dried, cured	::::	620	
Cod, haddock, hake, canned	2,340	800	
Mackerel, canned		600	
Clams and oysters, canned	2,528		
Clams and bysters, cannot	2,768		
Fish and prod., nes. ed.	_,.		
<del></del> -	200		236
Fish, nes., fresh or frozen		••••	360
Shellfish nes. fresh or Irozen	200		400
Salmon salted pickled, dried or cured	200		800
Fish, nes., salted, pickled, dried, or cured	1,000	6073	5,424
Salmon, canned	2,880	6,072	
Sardines, canned, inc. pilchards	4,695	4,792	10,724
Fish, canned, nes., exc. shellfish	63		140
Cod, haddock, dried, cured, salted, pickled		510	
Cod, naddock, dried, cured, saired, promote		6,048	
Fish, smoked or kippered	134,584		• • • •
Herring, salted, pickled, dried, cured	84		
Shrimp, canned	66,340	• • • • • • • • • • • • • • • • • • • •	
Fish and prod. ed., nes	00,540		• • • • • • • • • • • • • • • • • • • •
HONDOKA2			240
Cod, haddock, fresh or frozen	• • • •	• • • •	240
Cod, haddock, salted or pickled,		. =	. 274
	860	1,760	1,374
dried, cured		1,326	1,305
Herring, salted or pickled	210	944	3,037
Shrimp, salted or pickled	15,081	8,464	5,352
Salmon, canned	124,865	308,877	344,950
Sardines, canned, inc. pilchards	· <del>-</del>		630
Tuna, canned		• • • •	050
•			13

			700
Na-sharel conned		15,140	1,313
Mackerel, canned Fish, canned, n.e. class.	6,907	3,174	1,999
	3,847	1.710	••••
Shrimp, canned Oysters, shucked, fresh or frozen	1,325	262	
Shrimp, fresh or frozen		113	
Salmon, salted, pickled, dried, or cured	• • • •	390	
Cod, haddock, hake, etc., canned		1,015	
Cod, naddock, nake, etc.,	250	′ <del>-</del>	
Herring, canned	• • • • •	900	• • • •
Shellfish, nes., canned	192	• • • •	• • • •
Crabs, crab meat, canned	448	• • • •	-
Clams and oysters, canned	801	• • • •	• • • •
Fish and prod., nes. ed.			
JAMAICA	1,506	3,027	1,711
Salmon, canned		142	94,237
Sardines, canned, inc. pilchards	••••	402	234
True connect		52	379
Fish canned, nes. exc. shellish	• • • •	97	112
Crabs and crab meat, canned	• • • •	250	
Herring, canned	• • • •	150	
on the semped	2,000		
Salmon, salted, pickled, dried, cured	2,000		
	720	• • • •	• • •
LEEWARD ISLAN	DS	516	200
mmad	• • • •	-	100
Tuna, canned	• • • •	123	
Shrimp, canned		123	• • • •
Fish, canned, nes., exc. shellfish			
Cod, haddock, hake, etc., salted, pickled,	480		• • • •
dried, cured Mexico			400
canned	150		400
Salmon, fresh or frozen, exc. canned			1,000
Cod haddock, ifesh of flozen	20,857	10,917	20,328
Fish, nes, fresh or frozen		• • • • •	525
Ovsters	18,865	13,150	6,215
Shrimp, fresh or frozen		• • • •	1,920
Clame fresh	1,600	3,612	2,938
I obsters, fresh and Irozen	1.125		192
14-1 minVIAG CUIPU		14,300	2,550
	28,245		27,150
Herring, salted, pickled, dried, date	23,203	650	
Fish, nes, dried, cured			700
Sheilfish, nes.			5,978
Fish, smoked, nes.	8,381	8,720	18,395
Colmon canned	39,675	56,653	150,813
Sardine, canned, inc. pilchards		••••	1,100
Cod, haddock, canned	• • • •	300	400
Tuna, canned	13,298	6,684	18,306
Fish canned, nes.	4,758	1,803	584
Crab and crab meat, canned			
Oysters, canned	22.085		7,425
Shellfish, canned, nes.	23,985	1,200	600
Fish prod., nec.	••••		
Shellfish, pr., nec	••••	21,367	
	2 454		
Fish, pr., nec. Shrimp, salted, pickled, dried, cured	2,454	• • • •	
Sardines, salted, pickled, dried, cured	2,736		
Salunca, salico, promoti	228		
Shrimp, canned	21,367	••••	
Fish and prod. ed., nes.			

	75		
NETHERLAND'S ANT	4,308	8,297	3,039
combiner frozen	4,500	32,902	11,225
Salmon, fresh or frozen Cod, haddock, fresh or frozen ne. class.	17.020	19,610	18,272
Cod, haddock, from n.e. class,	17,920	740	108
Fish, fresh or frozen, n.e. class.  Oysters, fresh or frozen, shucked	1,325	10,184	26,961
Oristore tresh Ul 1102cm,	7,061 <b>60</b>	600	1,492
	00	975	2,650
Lobsters, fresh or frozen n.e. class.	00.215	24,430	23,325
	29,315	2 19 10	
Shellfish, Iresh of Holory Salmon, saled, pickled, or cured Salmon, saled, etc. salted, pickled.,	110 217	76,006	53,579
Cod. haddock, etc., survey	110,317	2,100	3,400
	9,200	12,965	5,418
Herring, salted, pickled	15,200 23,790	26,155	17,485
Fish, salted, pickled, n.e. class. Shrimp, salted, pickled or cured or dried		10,203	8,800
Shrimp, saited, pickies	156,364	193,347	176,276
Fish, smoked of kippers	130,307	36,149	123,966
Salmon, canned Sardines, canned, inc. pilchards	59,403 1,177		5,190
Sardines, canned, me. photos		5,412	5,790
Herring, Camico	6,423	935	3,730
Tuna, canned	32,383	26,511	42,072
Fish, canned, n.e. class.	12,491	3,236	2,651
Shrimp, canned		1,768	2,031
Crabs and crab meat, canned	• • • •	240	450
Oysters, canned	• • • •	200	
Fish, prep. pres. n.e. class Shellfish, nes., salted, pickled, dried, cured	3,888		
Shellfish, nes., saited, probable	735		
Oysters, fresh (in shell) Cod, haddock, hake, etc., canned	4.684	••••	
Cod, haddock, hake, oto,	8,133		
Lobsters, canned	624		
Clams and oysters, canned	55,059	• • •	
Shellfish, nes., canned	33,037	-	
Fish and prod. ed. nes.	LAGUA		
and solved nickled.			240
Cod, haddock, etc., salted, pickled,	4 4 6 2 3	6,421	15,738
dried, cureu	14,931		12,913
Salmon, canned inc pilchards	47,178	1,615	
Sardines, canned, mc. phones	2 446		201
Tuna, canned	2,446		
Fish, canned, nes. exc. should	2,017	•	177
	140	64	
Crabs and crao meat, canno	200	_	
Oysters, canned nes class, exc. cann	ned 30 26	· ·	
Fish, fresh, Hozen, hos	20	_	
Shrimp, Itesii of filed dried cured	20	_	
Shrimp, salted, pickled, dried, cured Sardines, salted, pickled, dried, cured	48	~	
	68		
	75	50	
Clams and oysters, canned	•	,,	
Fish and prod. ed. nes.	MA		240
# · · · ·		1,8	• • = - •
Cod, haddock, fresh or frozen	9		700
Shrimp, fresh or frozen	i :	• • • • •	4
	1	7	
Salmon, salted and pickled Herring, salted and pickled or cured	59,0	12 01,1	67 906
	•	• •	67 34,261
Fish smoked of hipport	22,0	404	
Salmon, canned incl. pilchards	132,7	Wy 404,	
Salmon, canned Sardines, canned, incl. pilchards			15

Tuna, canned		3,438	6,818
Fish, canned, n.e. class.	9,576	2,356	383
Oysters, canned		840	140
Shellfish, canned, n.e. class.	1,560	2,264	1,200
Fish, nes., fresh or frozen	10,669	4,800	••••
Oysters, shucked, fres hor frozen	414	720	• • • • •
	180	338	
Herring, canned	8.508	7,498	9,912
Shrimp, canned	120	465	
Crabs, crab meat, canned			• • • •
Fish, nes., salted, pickled, dried, cured	16,889	• • • •	• • • •
Clams and oysters, canned	1,450	• • • •	• • • •
Fish and prod. nes. ed.	2,717		• • • •
Salvador			
Cod, haddock, hake, etc., salted, pickled,			
	6,820	7,240	3,500
dried, cured	•	332	420
Herring, salted, pickled, dried, cured	• • • •		1,000
Shrimp, salted, pickled, dried, cured	2 000	10 550	17,463
Salmon, canned	3,008	10,558	
Sardines, canned, inc. pilchards	50,666	188,475	119,530
Cod, haddock, hake, etc., canned	• • • •	1,400	4,800
Tuna, canned		357	566
Mackerel, canned		608,515	992,205
Fish, canned, nes. exc. shellfish	216,561	141,268	330,732
Shrimp, canned	606	953	2,602
Crabs, crab meat, canned	344	994	1,907
Oysters, canned		382	382
Cod, haddock, etc., fresh or frozen		5,850	
		4,800	• • • •
Fish, nes., fresh or frozen	• • • •	150	••••
Lobsters, fresh or frozen	110		
Oysters, fresh, frozen (shucked)			• • • •
Fish and prod. nes. ed.	180	• • • •	• • • •
Surinam			
Salmon, canned	31,258	48,485	23,624
Sardines, canned, inc. pilchards	80,485	255,048	309,630
Shrimp, canned		85	345
Crabs and crab meat		495	360
Herring, salted, pickled, dried, cured		6,165	
Tuna, canned		190	
Shrimp, fresh or frozen	1,160	••••	
Salmon, salted, pickled, dried, cured	10,500	• • • •	
Fish and mad ad nee	223		
Fish and prod. ed. nes.  TRINDAD	447	• • • •	••••
			4,500
Sardines, canned, inc. pilchards	• • • •	• • • •	356
Shrimp, canned	• • • •	125	
Tuna, canned	****	135	• • • •
Fish, canned, nes. exc. shellfish	294	117	• • • •
Salmon, canned	886		
Crabs, crab meat, canned	113		• • • •
Shellfish, nes., canned	1,100		• • • •
Venezuela			
Salmon, fresh or frozen	5,589	816	4,267
Cod, haddock, fresh or frozen	• • • •	34,327	21,232
Fish, fresh or frozen, n.e. class.	98,717	44,234	53,705
Oysters, fresh or frozen (in shell)	8,339	26,425	3,875
Overtone fresh or fresh (shipked)	2,756	2,493	2,631
Oysters, fresh or frozen (shucked)		20,933	32,625
Shrimp, fresh or frozen	13,969		
Lobsters, fresh or frozen	336	448	1,797

		30,976	48,529
- frozen n.e. class.			330
Shellfish, fresh or frozen, n.e. class.	960	020	32,112
Shellfish, fresh or frozen, had or cured Salmon, salted, pickled, dried, or cured salted, pickled, dried, cured	731	21,830	43,217
And haddock, salled, promise,	25,890	26,451	43,217
Herring, salted or pickled	5,417	5,683	2,050
	J,417		230
Shrimp, salted of pickled, or cured Shrimp, salted, pickled, or cured Shellfish, salted, pickled, n.e. class.	• • • •	13,778	5,961
OL-IIIION CAITELL DICKIOGS	• • • •	13,770	97,650
Fish, smoked or kippered	365,092	473,717	2,141,287
	211,593		2,141,207
a 1' conned lile, blighter	4,245	2,940	270
Sardines, canned hake canned	7,270	244,857	140,535
Cod, haddock, hake, canned		83,789	26,629
Tuna cannea	151,717	201.056	146,395
Fish, canned, n.e. Class.	175,785	201,056	2,972
at : confied	9,404	11,891	0,022
Crab and crab meat, canned	• • • •	22,012	8,922
Clan and clan man		1,485	2,337
Oysters, canned	40.775	5,085	6,046
Clams, canned	19,725	4,975	420
or life canned H.C. Class.		4,713	750
Fish, prep. pres. n.e. class.	300	3,137	
Fish, prep. pres. n.e. class. Fish, nes. salted, pickled, dried, cured	14,364	3,183	
FISH, Hes. surred	7,388		
Herring, canned	7,360		
Lobsters, canned	17,249		
Clams and Ovsters, carried	53,577		• • •
Eich and prod. ed. Hes.			
F Total Attack T	- AND CA	DIRREAN	AREAS

## U. S. FOREIGN TRADE WITH GULF AND CARIBBEAN AREAS

# II. IMPORTS TO THE UNITED STATES FROM COUNTRIES OF THE GULF AND CARIBBEAN AREAS

GULF A	MD CARDDON			
Item Tuna, fresh or frozen Halibut, salmon & fresh-water fi Fish filleted, etc., nes, fresh or Shark fins, dried and unsalted Fish whole, etc., nes, fresh or fr	BAHAMAS ish frozen	1948 lbs.  120 2,329 285,125 ,197,821 5,833	1949 lbs. 1,000 452 1,003 787 350,850 1,297,857 4,792	1950 lbs. 900  470 337,939 1,289,496 8,488
Lobster, not canned Turtles Clams, fresh or frozen, not air Shellfish, nes	tite British Hondu	72,925	73,006	6,000 60,871 2,900
Fish filleted, etc., nes, fresh of Shark fins, dried and unsalted Fish whole, etc., nes, fresh or Lobster, not canned Shrimp and prawns	r frozen frozen	40,611 136,263 192 235	200 53,110	83,168 
Shellfish, nes  Tuna fish, in oil Shrimp and prawns	ANAL ZONE, PA COLOMBIA	4,013	1,200 50,000	
Tuna, fresh or frozen Shark fins, dried and unsalte Shrimp and prawns Shark fins, dried and unsalted	COSTA RIC	6,080	1,488	••••

CUBA			
		12,052	182,040
Tuna, fresh or frozen Halibut salmon, and fresh-water fish			46,554
Fish filleted etc., nes, fresh or frozen	6,720	9,360	136,293
Frog legs, fresh chilled frozen	602,483	734,532	360,744
Shark fins, dried and unsalted	13,015	2,199	1,791
Fish whole, etc., nes, fresh or frozen	52,905	6,367	136,133
Tuna fish in oil		• • • •	8,823
Bonito and yellowtail-over 9 cents		50	840
Fish pickled nes-over 15 pounds	7,500		1,082,914
Lobster, not canned			719,388
Lobster, canned	294,449	166,248 17,288	17,225
Turtles		2,690	1,406
Crabs, prep. or pres. nes	1 207	9,140	49,439
Crabs, fresh or frozen	1,287		*****
Shrimp and prawns	14,496	50	
Challfich nes	2,500	50	••••
FRENCH GUI	499	905	
Shark fins, dried and unsalted		705	• • • •
GUATEMAI		+5	
Lobster, canned	1,238	2,000	• • • •
Shrimp and prawns		2,000	• • • •
HONDUKA	S		6,572
Halibut salmon and fresh-water fish	• • • • •	241	497
chark fine dried and unsalted	221	241	2,000
Fish whole, etc., nes, fresh or frozen	::::	7,864	2,680
Lobster, not canned	6,616	15,200	800
Turtles	• • • •		800
JAMAICA	<b>L</b>		101
Fish filleted, etc., nes, fresh or frozen		620	461
Shork fine dried and unsalted	25		932
Fish whole, etc., nes, fresh or frozen	7,150	11,250	27,160
Lobster, not canned		355,970	489,053
Turtles	278,845		960
Shellfish, nes		• • • •	
LEEWARD ISI			36
Shark fins, dried and unsalted	• • • •	5,526	1,041
Fish whole, etc., nes, fresh or frozen	2.005	52,590	35,608
Lobster, not canned	2,085	20,257	68,150
Turtles	32,100		100
Shellfish, nes	• • • •		
Mexico	1 094 146	1,990,098	49,691
Tuna, fresh or frozen	1,564,140	8,373	61,148
Halibut salmon, and fresh-water iish	3,927		90,117
Fish filleted, etc., nes, tresh or trozen	177,248	157,512	40,093
Shark fins, dried and unsalted	5,735		• • • •
Trick nee dried and unsalted	3,432,853		3,808,183
Fish whole, etc., nes, fresh or frozen	3,432,033	44	44
Tuna fish in oil	••••		60
Tuna Antipasto and smoked pollock		18	
Antinasto in oil, not over 9 cents	17	217	
Antipasto in oil, over 9 cents	65		2,741
Tich roe not boiled		9,450	13,262
Clams, excl. razor and clam comb.	17,196		8,930
Fish pickled, nes, over 15 pounds	2,052,531		
Lobster, not canned	2,052,552	3,300	
Lobster, canned		•	

Turtles	444,479	627,479	585,513
Crabs, fresh or frozen	4,409		
Clams, fresh or frozen, not airtite	307,368	255,448	827,567
	21,477,390	29 382 193	39.652.640
Shrimp and prawns	21,777,330		2,071
Scallops, frozen, dried, canned	• • • • • • • • • • • • • • • • • • • •		• .
Oyster, fresh or frozen, not airtite	4,728	5,426	34,050
Abalone	4,428,085		4,559,799
Shellfish, nes	21,764	1,874	21,854
Netherland	's Antilles		
Shark fins, dried and unsalted		2,840	1,000
Lobster, not canned			1,750
	RAGUA		·
Shark fins, dried and unsalted	19,363	8,773	
Lobster, not canned	406		
	27,300	21,150	104,800
Turtles	-	1,900	
Shrimp and prawns	240	-	••••
Oyster, fresh or frozen, not airtite	248		• • • •
Pan	AMA		
Shrimp and prawns			143,006
	IDAD		
Shark fins, dried and unsalted		7,368	
Lobster, not canned		50	• • • •
	ZUELA	50	• • • •
	LULLIN	17,726	
Shark fins, dried and unsalted	0.470		• •
Fish pickled, nes, over 15 pounds	<b>8,47</b> 0	12,936	• • • •

## PRODUCTION, NUMBER OF FISHING CRAFT AND NUMBER OF FISHERMEN<sup>1</sup> IN THE GULF AND CARIBBEAN AREA

		Number	
	Pounds	of Fish-	Number of
INDEPENDENT COUNTRIES:	Landed	ing Craft	Fishermen
Honduras	600,000	100	200 <sup>2</sup>
Venezuela	122,800,000	4,260	20,000
Costa Rica	4,400,000	100	200²
Colombia	10,000,000	1,238	2,116
Nicaragua	200,000	100 <sup>2</sup>	200²
Panama	1,400,000	224	530
Mexico	105,000,000	4,056	11,000
Guatemala	200,000	100	200
El Salvador	800,000	1002	250 <sup>2</sup>
Dominican Republic	1,000,000	587	1,383
Haiti	3,000,000	2,0002	4,000
Cuba	42,200,000	2,509	40,000
	291,600,000	15,374	80,079
Dependencies:			
Bahamas	1,600,000	133	624
Barbados	500,000	800²	
British Guiana ·	4,000,000	383	700
British Honduras	600,000	500	500
Curacao	1,000,000	200²	
French Guiana	6,000,000	30 <sup>2</sup>	30

<sup>1</sup> Latest figures available for the respective country.
2 Interpolated estimates

	800,000	854	3,372
Guadeloupe	11,000,000	$3,000^{2}$	7,500
Jamaica	1,400,000	837	$1,600^2$
Leeward Islands	600,000	8002	$2,000^{2}$
Montserrat	1,800,000	800 <sup>2</sup>	1,6002
Anguilla-St. Kitts Nevis	400.000	200²	- 400 <sup>2</sup>
Virgin Islands (U.K.)	400,000	654	805
Martinique	2,600,000	1,900	1,369
Puerto Řico	2,000,000	5002	833
Surinam	2,000,000 2,000,000 <sup>2</sup>	948	2,000
Trinidad and Tobago	11,200,000	286	405
Virgin Islands (U.S.A.)	2 000 0002	2,216	4,000²
Windward Islands	3,000,000 <sup>2</sup>	300 <sup>2</sup>	6002
<b>Dominica</b>	2,200,000	300 <sup>2</sup>	600²
Grenada	2,400,000	4003	800²
St. Lucia	3,200,000	4002	800 <sup>2</sup>
St. Vincent	3,400,000	400-	
	61,700,000	16,441	32,938
States of the United States:	21 002 000	895	1,635
Texas	21,993,000	4,095	6,253
Louisiana	163,900,000	934	1,669
Mississippi	70,786,000	6,740	11,000
Florida	243,845,000	0,740	
	500,524,000	12,664	20,557
TOTAL FOR AREA	853,824,000	44,479	133,574