As time goes on each industry looks for new fields into which it can expand. The fishing industry is no exception. Since 1946 the red shrimp production has aided the fishermen of the Texas coast. In 1948 mullet fishery was opened on a small scale. There is now a possibility of a shark fishery on the Texas coast. These new products call for a higher capital investment and higher expenses and at the same time benefit the fishing industry to the people of Texas.

The people of the nation and the world benefit from the added investment and expenses. This money goes to various places to produce the needed equipment and materials for the increased production.

LITERATURE CITED

McDANIEL, RUEL. 1949. Here is your commercial seafood industry. Seafood Business, Jan. 1949.

STEVENSON, CHARLES H. 1893. Report on the coast fisheries of Texas. United States Commission of Fish and Fisheries Part XVII. Report of the Commissioner for 1889 to 1891, 47 pp.

WOOLRICH, WILLIS RAYMOND. 1946. Economic analysis of the Texas fishing industry. Thesis presented to the University of Texas. 71 pp.

The Legislative Situation on Sponges

R. A. KAHN

Branch of Commercial Fisheries, U.S. Fish and Wildlife Service

General Background of the Present Condition of the Sponge Market

BEFORE REFERRING to the legislative situation on sponges, the general background of the present condition of the American and Caribbean sponge market must be discussed.

The principal commercial sponges are sheepswool, yellow, velvet, grass, wire, reef, and hardhead, largely from the waters of the United States, Cuba, and the Bahamas; and Turkey cup, Turkey toilet, Zimocca, elephant-ear and honeycomb or Mandruke, chiefly from the Mediterranean countries. The Turkey cup, Turkey toilet, and minor species of similar texture are marketed in the United States as Mediterranean silk sponges. The West Indian reef sponges are finer grades of hardhead from the same source are marketed as American silk sponges.

The best grades of American sponges are obtained by divers who descend in diving suits to depths of 100 feet or more. Sponges in shallower waters are gathered from boats by pronged hooks on the ends of long poles. The use of drag nets does a great deal of harm to the sponge beds because it uproots small sponges as well as those of marketable size, and is therefore not permitted in the Florida sponge fishery.

2. American Production of Sponges

There were employed about 730 sponge fishermen in 1940 and 1123 in 1939. Many in the meantime migrated to other employment. Where formerly 200 boats were employed there are now 60.

The production of sponges in the United States is confined to a limited area along the West Coast of Florida, and yielded a production of 158,304 pounds in 1947, at \$1,741,883, or \$11 per pound. Among the 1947 production were 12,456 lbs. large wool; 15,715 lbs. small wool; 99,408 lbs. wool rags; 127,579 lbs. total wool; 11,220 lbs. yellow and 19,505 lbs. grass sponges. Fluctuations in the annual catch, at least until the middle '30's, were caused mainly by

weather conditions, for about the same number of vessels were employed in the fishery from year to year. As can be seen from Table 1, U.S. sponge production decreased from an average of 628,489 lbs. for six years, 1934 - 1939 inclusive to a low of 134,581 lbs. in 1948.

TABLE 1
TOTAL UNITED STATES SPONGE PRODUCTION (1934-1944)

		TOTAL	TOTAL	AVERAGE UNIT
YEAR		POUNDS	VALUE	PRICE PER POUND
1934		655.000	837,000	1.28
1935		655,000	838,000	1.28
1936	AVERAGE	739,939	1,105,000	1.49
1937	628,489	631.000	1,220,000	1.93
1938	,	606,000	1,071,000	1.77
1939		484,000	1,162,000	2,40
1940	•	243,000	888,000	3.65
19411		231,179	1,483,554	6.42
19421		211.816	1,848,095	8.72
19431		200,161	2,505,521	12.52
19441		164,724	2,771,590	16.82
1945		203,447	2,716,374	13.35
1946		156,916	2,945,831	18.77
1947		158,304	1,741,883	11.00
1948		134,581	899,927	6.69

^{1.} Total United States production figures for these years are not available. Sales of sponges on the Tarpon Springs Exchange in Florida are available, and an estimate of the total production was made by using an average ratio of total production to sales on the Exchange and projecting it to the four years.

3. Cuban and Bahamian Production of Sponges

The production of Cuba shows an even sharper decrease, as may be seen from Table 2.

TABLE 2 CUBAN SPONGE PRODUCTION 1935-1948

YEAR	QUANTITY	VALUE	AVERAGE VALUE PER POUND
1935-1939 av.	652 000	378,000	0.58
1940-1944 av.	95,250	450,800	4.73
1945	27,050	214,810	7.94
1946	44,070	442,500	10.04
1947	16,230	132,090	8.14
1948	18,000	124,000	7.00

The production in the Bahamas similarly declined from a high of 1,486,000 lbs. in 1905 to about 32,500 lbs. in 1948.

The decline of production was due in large part to the destruction of sponge beds by hurricanes of about half of the supply in the Bahamian waters and the depletion by excessive fishing of Cuban beds. Some measure of recovery was noted after 1933, but in 1939 a blight attacked the Bahamian and Cuban beds in addition to those in Florida. The velvet sponges in the Bahamas were almost completely destroyed, and after 1939 the Bahama Islands ceased to rank as the principal competing country for this product. So far there are no signs of recovery.

4. Imports of Sponges

Before World War II approximately 1 million pounds of sponges were consumed in the United States. Imports supplied about one half of the total con-

sumption. From Table 3 the total imports of sponges in the United States may be seen, while Table 4 contains the imports from Cuba, the British West Indies and the "Other Countries."

TABLE 3
TOTAL UNITED STATES IMPORTS OF ALL SPONGES (1934-1944)

	TOTAL	TOTAL	AVERAGE UNIT PRICE
YEAR	POUNDS	VALUE	PER POUND
1934	479,307	\$ 387,730	\$0.81
1935	(613,143	464,211	0.76
1936	Average 605,683	561,738	0.93
1937	523,373 \ 581,906	587,620	1.01
1938	428,664	475,238	1.11
1939	431,536	476,035	0.97
1940	519,041	588,763	1.13
1941	222,117	518,107	2.33
1942	117,528	613,010	5.22
1943	194,781	909,205	4.67
1944	123,581	944,459	7.64
1945	95,596	791,979	8.28
1946	328,281	3,087,321	9.40
1947	208,653	1,674,818	8.03
1948	355,015	2,587,305	7.29
1949 Jar	nJuly 187,639	1,390,603	7.41

Source: Foreign Commerce and Navigation of the United States-1934-1944.

TABLE 4

Total United States Imports from Cuba and the British West Indies

Cliba British West Indies Other Countries

	Co	DA	DKIII3H WES	I INDIES	OTREK (COUNTRIES
YEAR	TOTAL POUNDS	IMPORTS VALUE	(BAHAMAS) POUNDS	IMPORTS VALUE	TOTAL POUNDS	IMPORTS VALUE
1934	/309,502	262,813	134,779	55.864	35,026	69.053
1935	go (389,167	313,357	. 1192.306	65.583 p	31.670	85,271
1936	ਲੈੱਡ) 363,680	387.073	9 / 189.973	97,039 26	52,030	77.626
1937	한자 315,922	363,698	à \ 227,056	133.632 ងី។	38.928	90,290
1938	363,680 315,922 (271,466	343,783	141,195	68,639 ₹	16,003	62,816
1939	277,124	288.242	187,783	119,105	26,629	68.688
1940	464,589	503,681	38.998	40.351	15.454	44,731
1941	185,636	443,096	21,662	19,244	14,819	55,767
1942	101,317	569,620	9,481	17,562	6,730	25,828
1943	191,636	803,615	572	3.038	2,573	102.552
1944	118,076	899,629	2,649	14,652	2,856	30,178
1945	62,898	513,733	87	450	32,611	277,796
1946	70,234	608.154	121	400	257,926	2,478,767
1947	32,098	261 348	17.686	75.843	158,869	1.337.627
1948	46,505	235.941	880	8,970	307,630	2,342,394
1949-JanJul		106,930	1,041	7,852	166,142	1,275 821

Before the war Cuba supplied roughly 66 per cent of the quantity of all imports of sponges in the United States, and the British West Indies almost 33 per cent. The other countries, among which the Mediterranean countries, especially Greece and Italy, have to be mentioned, supplied the rest, about 1/19 of all imports. After the war the import situation changed completely. Sponge fishing in the Mediterranean, which was interrupted during the war, was resumed and expanded. Because of the short supplies available from domestic sources and the short supplies available in Cuba and the British West Indies, imports from the Mediterranean area increased tremendously. In 1948 Cuba exported only about 13 per cent of all our imports, the British West Indies about 0.2 per cent, while the Mediterranean countries participated with about 87 per cent of the imports. The relationship of imports to domestic production

developed inversely. While in 1938 imports equalled about 75 per cent of the domestic production, in 1948 they surpassed domestic production by about 160.5 per cent.

5. Sponge Tariffs and Tariff Policies

To protect the growing American sponge industry, a tariff was established which applied to all countries except Cuba, which has a 20 per cent preferential tariff on all products. The Tariff Act of 1913 (par. 68) provided rates of duty at 10 or 15 per cent ad valorem on all types of sponges imported. Sponges, trimmed or untrimmed, but not further advanced in value by chemical processes, were dutiable at 10 per cent ad valorem; bleached sponges and sponges advanced in value by processes involving chemical operation, 15 per cent. In the Tariff Act of 1922 (par. 1447) a rate of 15 per cent ad valorem was set on all types of sponges and 25 per cent on manufacture of sponges.

The Tariff Act of 1930 (par. 1545) provides: "Sponges, commercially known as sheepswool, 30 per centum ad valorem; sponges, commercially known as yellow, grass, or velvet, 25 per centum ad valorem; all other sponges, not specially provided for, 15 per centum ad valorem; manufacture of sponges, or of which sponge is the component material of chief value, not specially provided for, 25 per centum ad valorem." Under a decision of the Customs Court (Abs. No. 21073) July 28, 1932, sponge clippings were held to be entitled to free duty under paragraph 1750 of the Tariff Act of 1930, as paper stock rather than dutiable at 10 per cent as waste.

By Presidential Proclamation, effective September 18, 1932, under Section 336 of the Tariff Act of 1930, the duty on sheepswool sponges was reduced to 22½ per cent.

In September 1934, a trade agreement between the United States and Cuba provided for a reduction in the rate of duty on velvet sponges from 20 per cent (the preferential rate for Cuba) to 12 per cent, and the rate of duty on sponges not specially provided for was reduced from 12 per cent (the preferential rate for Cuba) to 6 per cent. The latter included hardhead, reef, and all others.

In a trade agreement with the United Kingdom (including the Bahamas), effective January 1, 1939, rates of duty on yellow, grass, and velvet sponges were reduced from 25 per cent to 15 per cent and on hardhead and reef, from 15 per cent to $7\frac{1}{2}$ per cent.

6. Protection of Sponges Under Biological Control

At present commercial sponge resources of the United States are protected both by an Act of the Congress of the United States and by the laws of the State of Florida. The Act of Congress (Public No. 172, approved August 15, 1914; 38 Stat. 6921) prohibits the capture in waters of the Gulf of Mexico and the Straits of Florida, outside of the limits of territorial jurisdiction, of sponges measuring less than five inches in diameter when wet. This Act also forbids the landing, curing, possession, or sale of sponges less than that size and provides penalties for violation. The laws of Florida (Chapter K, Art. 27, Sec. 8084) contain substantially the same prohibitions with respect to catching and marketing sponges within the territorial limits of the State. A State law also provides that hooks used in removing sponges from the bottom shall be five inches wide and prohibits the use of diving equipment for taking sponges within the territorial limits of the State. In accordance with the Constitution of Florida, State jurisdiction on the West Coast extends three leagues (nine miles) from shore.

An Executive Order was issued by the President of the United States on September 28, 1945, regarding boundaries of territorial jurisdiction of the United States. It is a statement of policy; how far the present jurisdiction has been changed or extended is not yet known.

7. Unit Values of Sponges and Fishermen's Incomes

The unit values of both domestically harvested sponges and imported sponges rose extremely during the war. While in 1938 the unit value of domestic sponges per pound was \$1.80, this unit value in 1946 was \$18.77, receding in 1947 to \$11.00, in 1948 to \$6.69 and in 1949, according to estimates for the first seven months, to \$6.09. The unit value of imported sponges never reached the height of the domestic sponges. In 1938 it was \$1.11, in 1946, \$9.02, receding in 1947 to \$8.03, and in 1948 to \$7.28. In the first seven months of 1949 the unit value for imported sponges was \$7.41 per pound. From Tables 5 and 6 it can be seen that imported sponges retain a higher sales value than domestic

TABLE 5 Unit Value per lb. of Sponges Produced in U.S. 1931—July, 1949

YEAR		UNIT	VALUE	(PER	POU	ND
1931				\$	1.58	
1933					1.13	
1935					1.60	
1937					1.95	
1938					1.80	
1939					2.44	
1943					0.61	
1946					8.77	
1947					1.00	
1948					6.69 6.09	
1949 (7	months)					
Source:	Official	statisti	cs of	the U	. S.	Fis

sh and Wildlife Service

TABLE 6 Unit Value per lb. of Sponges Imported in U.S. for Consumption 1931-July, 1949

YEAR	UNI	T VALUE	(PER PO	UND)
1931			\$1.16	
1933			.88	
1935			.70	
1937			1.0	l
1938			1.1	l
1939			.9	7
1943			4.6	5
			8.2	
1945			9.4	
1946				
1947			8.0	
1948			7.2	
1949 (7 m			7.4	
	Official stat		the U	J.S.
Departmen	t of Comm	erce.		

sponges, not only absolutely but also in relationship to pre-war years. However, it has to be considered that the price of domestic sponges is a price paid at the Tarpon Springs exchange, to which packing and shipping costs have to be added, while the price of imported sponges already include packing and shipping costs.

8. Pending Legislation

Pending legislation attempts to go in two directions. First, efforts are being made to increase production by replenishing the sponge beds, after further investigation of the causes of their depletion. Secondly, efforts are being made to secure higher prices, and by that a higher income for the sponge fishermen. Higher prices are attempted by either restricting imports or by levying higher duties upon imports.

To evaluate the importance of the regress of domestic production and the recession of prices, one has to look on the over-all income of sponge fishermen resulting from their production. If one considers the total value of the United States sponge production and assumes that this total value is about equal to the sponge fishermen's income, one can see that the 1948 income was about the same as the 1940 income. If one assumes that the number of sponge fishermen has not noticeably changed, the conclusion is permitted that the income of each individual fisherman is today about the same as it was in 1940: \$1200 - \$2000 per year, despite the cost of living increase of about 69 per cent and food cost of about 104 per cent. Under these circumstances there is no wonder that the sponge fishermen attempt to move the legislative forces in their favor.

Before speaking of individual bills which specifically deal with sponges, it is necessary to call attention to a bill which is of general importance, namely, Senate Bill 1965, introduced by Senator Malone, which would apply to sponges, among other important products. Senator Malone would like to see established a Foreign Trade Authority with the following duties:

"(a) The Authority is authorized and directed, from time to time, and subject to the limitations hereinafter provided, to prescribe and establish import duties which will, within equitable limits, provide for fair and reasonable competition between domestic articles and like or similar foreign articles in the principal market or markets of the United States. A foreign article shall be considered as providing fair and reasonable competition to United States producers of a like or similar article if the Authority finds as a fact that the landed duty paid price of the foreign article in the principal market or markets in the United States is a fair price, including a reasonable profit to the importers, and is not substantially below the price, including a reasonable profit for the domestic producers, at which the like or similar domestic articles can be offered to consumers of the same class by the domestic industry in the principal market or markets in the United States."

Specific bills dealing with the sponge industry are S. 2097 and S. 5322. S. 2097 would provide "that the Secretary of Agriculture, through the Commodity Credit Corporation and other means available to him for supporting prices of agricultural commodities (treating natural sponges as an agricultural commodity for the purposes of this Act), shall support the price of natural sponges to producers at such levels as may be necessary to preserve the continued operation of the domestic natural sponge industry." The bill H.R. 5322 (Mr. Peterson) is identical to S. 2097. A specific investigation by the United States Tariff Commission concerning sponges is sought by S. Res. 109 which would provide "that the United States Tariff Commission is directed under authority conferred by section 336 of the Tariff Act of 1930, and for the purposes of that section to investigate the differences in the costs of production of the following domestic articles and of any like or similar foreign articles: Sponges."

On August 25, 1949 Senator Pepper introduced a bill (S. 2489) which has the following text: "That there is hereby authorized to be appropriated the sum of \$250,000, to enable the Secretary of the Interior in cooperation with such States as may desire to participate, (1) to carry out a program of research and experiment with respect to natural sponges, (2) to propagate and plant

natural sponges, (3) to study diseases of natural sponges, and (4) to take other appropriate action to assist in the further development of the natural-sponge industry. Any sum appropriated under the authority of this Act shall remain available to the Secretary of the Interior until expended. (H.R. 6063 (Peterson) is identical.) On the same date a bill, S. 2490, was introduced by Senator Pepper (H.R. 6064 (Peterson) identical), which would direct "That the Director of the National Bureau of Standards shall make a study of the relative merits (as to durability and other pertinent characteristics) of natural sponges and synthetic sponges with respect to the various purposes for which sponges are commonly used, and shall, as soon as practicable, report the results of such study to the President of the Senate, the Speaker of the House of Representatives, the Secretary of Defense, the Secretary of the Interior, the Secretary of Commerce, and to the heads of such other Government agencies using sponges as he considers appropriate." This latter bill deals specifically with the relative merits of natural and synthetic sponges.

That the competition of *synthetic* sponges is not negligible, may be seen from the tremendous inroads made by the synthetic sponges. 1948 figures of sponge purchases of public agencies or public institutions have been obtained.:

- 1. Bureau of Federal Supply—It did not buy rubber or plastic sponges. It bought \$20,000 worth of natural sponges at an average price of 90c a piece (precisely 21,446 pieces at \$20,945) and it bought 33,000 cellulose sponges at an average price of 38c a piece (precisely, a total purchase price of \$12,683).
- 2. Post Office Department—It bought no natural or rubber sponges. It bought 55,000 cellulose sponges at the price of \$6,720; this means an average price of 12c a piece.
- 3. The Army Ordnance Department—It brought no natural sponges or rubber sponges. It bought 10,000 cellulose sponges, size E at 40c a piece, equal to \$4,000. It further bought 75,000 cellulose sponges, sizes 10, for the total price of \$27,800, at an average price of 37c a piece, and another 150,000 cellulose sponges, size 6, for the price of \$21,000 (about 14c a piece).
- 4. Navy Stores—It bought 23,000 natural sponges at the price of \$16,000 (average price 70c a piece); it also bought 6,000 cellulose sponges for \$2,500 (average price of 42c a piece).

Despite the strong competition of the synthetic sponge there is still a great demand for natural sponges, according to private investigations. Drug store owners and drug store managers indicate that they can sell at present the double quantity of natural sponges if the price could be reduced by about 50 per cent.

Concluding, the problems of the American, Cuban and Bahamian sponge industries may be stated:

- (1) Diseases and probably overfishing decreased sponge supplies available. For the improvement of the economic condition of the fishermen, at least double the present supplies have to be harvested.
- (2) Natural sponges must be made available in the retail markets with prices which are in a proper relationship to the general cost of living, and to the cost of other products.
- (3) Public purchasers should consider more than has been done in recent years the producers of natural sponges.
- (4) If the tariff policy of the United States is to be revised, proper consideration should be given to the producers of natural sponges, to permit them fair costs of production and a reasonable profit.