United States Department of the Interior, J. A. Krug, Secretary
Fish and Wildlife Service, Albert M. Day, Director

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CUBAN FROG LEG INDUSTRY

Ey Joseph L. Martinez*

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The export of frog legs from Cuba to the United States has grown during recent years into a sizable industry with shipments of over 300,000 pounds in 1945, valued at well over \$100,000. The quantity of frogs in Cuba is increasing rapidly and exports are expected to gain steadily in importance.

PRODUCTION: The only species of frogs exploited commercially in Cuba is the bull-frog (Rana catesbiana), which is also known locally as the "Charles" frog because it was first brought into Cuba in 1915 from the United States by Colonel Charles Hernandez of the Cuban Army.

Several pairs of American frogs were placed in a pond at "El Chico" farm near Habana and they propagated rapidly. Eggs from these frogs were disseminated in ponds in various parts of Pinar del Rio and Habana Provinces, and eventually spread throughout Western Cuba and a few places in Eastern Cuba, although they thrive better in Pinar del Pio Province where pends, lakes and natural food abound. By 1940 these frogs had spread to the Zapata swamp in Matanzas Province, Sagua la Grande in Las Villas Province, in the Virama Marsh in Oriente Province, and to a lesser extent in Camaguey.

There are no commercial breeding pends in Cuba at the present time. Sporadic attempts were made some time ago by private individuals to produce frogs commercially by surrounding pends with netting, but as soon as the stage of saturation was reached feeding became a problem and the frogs were

^{*}Foreign Service Clork, American Embassy, Habana, Cuba, February 14, 1946 (Report No. 66)

left to seek food by themselves. The Ministry of Agriculture asserts that it is not economical to produce frogs commercially. In Cuba they feed only on live animals -- shrimps, minnows and other kinds of small fishes and, when there is a scarcity of natural food, resort to cannibalism.

There is no estimate of the number of frogs in Cuba. The drought which followed the hurricane in 1944 reduced production somewhat, but breeding regained impetus when the rains began again in 1945. Following the temporary decline in exports during the war, the Ministry of Agriculture estimates that there are now sufficient frogs to double the rate of exports.

The quantity of frogs caught depends to a large extent on the price and demand for tobacco, particularly in Pinar del Rio Province. When tobacco prices are low, tobacco growers and workers turn to frog-hunting as a side line for additional income. When tobacco prices are good, they do not bother with frogs. At the present time tobacco wages and income are such that few people are willing to hunt frogs at prevailing prices. Processors feel that they are unable to pay the increasingly higher prices and have limited their purchases to absolutely necessary quantities to fill urgent orders, pending an agreement with frog hunters on prices. If no understanding is reached, processors reportedly will send their own men out from Habana to hunt frogs.

There is no particular season for catching frogs in Cuba. They are hunted all year round, but in winter when there is a prohibition in the United States against catching frogs, business in Cuba becomes brisk until spring when harvest in the United States commences. They are hunted mostly at night. A strong electric flashlight and a jute bag with a wooden hoop at the opening are held in the left hand. The frog is blinded by pointing the flashlight at it and is then picked up. Another method of catching frogs which is becoming popular is by spearing.

In Cuba some frogs are known to live as much as 7 years, or longer. For commercial purposes to insure tender meat, however, only those at least one year old (after reaching the frog stage) and not older than two years are taken, because those younger than one year are not economical and those older than two years are not sufficiently tender.

PROCESSING: There are about 20 cleaning and packing stations in Pinar del Rio Province; Consolacion del Sur is the shipping terminus. Hunters bring the live frogs to the cleaning stations and deposit them alive in a corral until such time as a truck loaded with ice arrives from the exporter in Habana. The frogs are then cleaned and skinned by hand. Lately quite a number of hunters are delivering frog legs already skinned. The legs are placed in iced tanks and iced wooden cases and trucked to Habana for repacking and shipping. No use is made of the waste and skins.

Prior to the war the method of repacking frog legs in Habana involved more detailed operations than at present. Those which passed inspection were immersed in iced water and thoroughly washed. They were then glazed with ice individually at low temperature to provide a thin, transparent ice coating. Each piece was wrapped in paraffin paper and from 8 to 10 sets of legs were packed in paraffin cardboard cartons. The cartons were then placed 200 to a wooden box and stored in refrigerated warehouses for shipment on refrigerated boats.

During the war there was a scarcity of paraffin paper and cardboard cartons, and refrigorated shipping was not available; packers were forced to pack in bulk without the ice coating, in wooden boxes containing 100 pounds of freg legs and about 120 pounds of ice. This method of packing continues. Packing houses hope, now that the war is over, that they will be able again to glaze and pack as before. One small concern packs freg legs for export in ice-laden barrels.

The major portion of exports from Habana, until the war started, was processed by a very large local beef packer, as a side line. The frogs were collected alive in refrigerated trucks from Pinar del Rio, Habana and Matanzas Provinces and were skinned, cleaned and packed in the beef slaughter-house in Habana. Shortage of refrigeration and shipping facilities during the war, as well as organized labor demands for higher wages, forced this packer to discontinue handling frogs.

Frog skins heretofore have been wasted because the market possibilities and the method of tanning were unknown. An American processor reportedly has obtained information as to methods of drying and preparing skins, and this year he reportedly intends to ship to New York for distribution to European markets,

CONSUMPTION: Until very recently frog meat was not used in Cuba, but lately a number of people have begun using it. In the large cities it is eaten principally by foreigners. Domestic consumption as a whole is negligible.

EXPCTTS: Exports of frog legs prior to 1938 were comparatively insignificant and were therefore not shown separately in foreign trade statistics, but subsequently they have risen sharply. In 1942, when shipping became disrupted owing to the war, exports fell to half the volume of the preceding year, but in 1943 rose again to substantial levels. Average yearly exports from 1943 to 1945, inclusive, amounted to about 260,000 pounds or roughly two and a half times as much as the period from 1938 to 1940.

Table 1. Cuban Exports of Frog Legs, Years 1937 to 1945, Inclusive.

Year	Quantity	Value	
		Total	Per Pound
 Busher Call of Berry	pounds	dollars	cents
1937	0	0	0
1938	6,411	1,627	25.3
1939	52,646	5,466	10.4
1940	264,246	11,745	15.8
1941	381,457	99,771	26.1
1942	191,476	53,152	27.7
1943	258,172	90,244	34.9
1944	211,979	72,682	34.3
1945	302,400 1/		2/

Source: Converted into pounds by Embassy from foreign trade statistics.

^{1/} From ships manifests.

^{2/} Average export value per pound during first half of 1945 was 25 cents; in August 38 cents; in September 57 cents.

Miami is the chief port of entry into the United States for Cuban frog legs. From there they are distributed to other consuming markets. About two months ago about 4,000 pounds were sent by air express to New York, but this method of forwarding has not been continued because the freight is high. The TACA Airlines reportedly intend to reduce their air express rates to New York, and Cuban exporters hope this will enable them to supply the New York market direct.

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PRICES: The official foreign trade statistics indicate an average export value of 10.4 and 15.8 cents per pound prior to the war in 1939 and 1940, and an increase to 35 cents per pound during the first half of 1945. In August, the export value rose to 38 cents and in September to 57 cents per pound.

Prices for <u>export</u> in bulk in ice-laden wooden boxes have fluctuated in the past few months from around \$0.70 to \$1.00 per pound F.O.B. Habana. They will probably continue to fluctuate considerably so long as the dispute between frog hunters and packers continues unsettled.

Prices for consumption in Habana to restaurants and individuals now average 70 to 80 cents per pound, as compared with 60 to 70 cents in 1945 and 50 to 60 cents prior to the war.